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ABSTRACT

Volume two of the report on the Aesthetic Education Program contains summaries of research and evaluation projects on the program plus reports on teacher education and dissemination of the materials. The research and evaluation section of the report includes formative and summative evaluation summaries and also a list of pilot tests of the materials. The theoretical research evaluations focus on the role of research in the program and the psychological aspects of the program. The teacher education section reports on mass media projects and learning centers, designed to increase teacher awareness and acceptance of aesthetic values as important to the individual and society and to train teachers in the Aesthetic Education Program. The final section provides tables that help the prospective buyer of the program materials determine the total initial cost for any combination of units. A bibliography of all published materials that have been generated by the subject is included. (DE)

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A Report on
The Aesthetic Education Program

Volume II

prepared for
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October, 1975

submitted to
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by
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II. Evaluation and Research

A. Overview and Summaries of Research and Evaluation

AN OVERVIEW OF EVALUATION OF THE AESTHETIC EDUCATION PROGRAM

The development of aesthetic education instructional materials is based on a conception of the classroom activities and processes that students should be engaged in to begin a life-long building of aesthetic awareness. This conception is derived from broad classes of principles, perceptions, and experiences that aesthetically sensitive persons use in examining and contributing to the aesthetic dimensions of their world. In this respect the Aesthetic Education Program's instructional materials represent a departure from the traditional mode of curriculum development in that they use the classroom as a laboratory of experimentation and development.

While some of the activities and processes that comprise the materials may be chosen on the basis of their ability to bring about prespecified payoffs in terms of student change, they more frequently represent an operationalizing of Piaget's notion that "The goal of education is not to increase the amount of knowledge," but "to create possibilities for a child to invent and discover, to create men who are capable of doing new things." The classroom activities are chosen not only to teach a concept and reach an objective but also as experiences to be valued in their own right.

The prominent role of process is reflected in the formative evaluation which is carried on during the development of the individual package of materials. In the early stages of development, trained observers carry out an exhaustive observational monitoring of an entire package implementation. This information, fed back to the development staff, serves as a basis for revision and further trials of the materials before they are considered for publication. In this stage, the materials must pass three major tests in order to be considered worthy of delivery to the publisher. First, they must be in keeping with the overall goal of the Aesthetic Education Program. Second, there must be evidence that the materials can stand alone in the hands of a competent teacher and be successfully implemented without additional aid beyond that given in the teacher's guide. Third, the materials must meet certain short-term payoff objectives, demonstrated by verification of measurable differences between students who have studied the materials and those who have not.

At the pilot test stage, controlled experimental studies that use an average of 100 students as a sample have shown significant measurable learning taking place in most cases. In those few cases where such results were not shown, it was either established that the intent of the materials was to give the students an experiential background in some discipline upon which learning in the more traditional sense will later be built[1] (in which case the measurement of behavioral change is probably inappropriate), or the materials were scrapped or returned to the development staff for drastic revision.

Student attitude toward individual sets of materials at pilot test has been high. Student questionnaires filled out after the pilot trials have found an average of about 75% of the students "very happy" or "happy" with their package experience even before the final revisions are made for publication.

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[1] Of the present packages, "Arranging Sounds with Magnetic Tapes" is probably the best example.

Long-Term Evaluation in Pennsylvania:

It is recognized, however, that evaluating a program in aesthetic education must not be limited to the evaluation of the individual sets of materials and the learning processes themselves.

The Aesthetic Education Program staff has always felt that the total payoff of aesthetic education is potentially much greater than the sum of the payoffs of the individual components. Such goals as aesthetic awareness and other potential long-term payoffs of the materials are not directly taught in the individual packages. A number of studies have been and continue to be carried out to provide information to potential consumers regarding the program's strengths and weaknesses in this broader context.

The first large-scale evaluation of this nature has been going on for three years throughout the state of Pennsylvania. During the first year of this study, two evaluators spent many months observing both the joys and the problems of a first large-scale adoption of the materials--nine elementary schools in nine different school districts. While the resulting documentation of this effort[2] does not attempt to make definitive judgments regarding the worth of the materials, its revealing insights into the problems of implementing a program in aesthetic education remain an excellent source of information.

Evaluators have continued to monitor the Pennsylvania Project through the use of Teacher and Administrator Questionnaires. The general level of acceptance of the program has been exceptionally high. During the 1972-73 school year, the Aesthetic Education Program at CEMREL collected questionnaire data from 139 classroom teachers in Pennsylvania. Their responses referred to their extensive utilization of Creating Word Pictures, Constructing Dramatic Plot, Creating Characterization, Meter, Relating Sound and Movement and some utilization of Texture, Shapes, Shape Relationships, Shapes and Patterns, and Examining Point of View. Some of the major findings of this study were:

1. It was clear from teacher responses that the installation of The Five Sense Store materials in the classroom poses no serious management difficulties. Almost all of the teachers reported no difficulties or minor difficulties with managing the pupils' use of complex materials. Finding space for pupils to do the activities presented no difficulty for 62%, and only minor difficulty for 31% of the teachers reporting. Few difficulties were likewise reported in organizing the small group activities, with 96% reporting there were either "no" or "minor" difficulties. Teachers typically implemented a set of materials by utilizing free time or time allocated to a related discipline.

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[2] Smith, L.M. and Schumaker, S., Extended Pilot Trials of the Aesthetic Education Program: A Qualitative Description, Analysis and Evaluation (St. Louis: CEMREL) 1972.

2. Only 13 teachers, or 10% of those responding, expressed the opinion that the difficulty of judging whether or not student learning took place was a factor that interfered with their ability to carry on the program.

3. When asked how quickly pupils learned from the activities, the responses of most of the teachers indicated that use of the materials alone was sufficient to teach the minimum concepts to their pupils. Although many teachers felt that their students learned the minimum concepts the first time through the activities, the greater number of teachers repeated package activities.

4. When asked to compare the importance of aesthetic education to other areas of study, 72% of those responding indicated that they felt aesthetics was of equal or of even greater importance.

5. In the judgment of the teachers, most students enjoyed the materials and actively participated in the activities.

6. Eighty-nine % of the teachers reported that "many" or "most or all" of their students were able to explain their arts products or activities.

7. Eighty-two % of the teachers reported that at least a few students raised package-relevant questions not covered in the activities, and extended the vocabulary, concepts, or skills learned through the package materials to other areas of study.

8. When asked if they intended to use The Five Sense Store materials in the future, 72% of teachers responded that they had definite plans to do so. No teacher had definite plans to eliminate the program from the classrooms.

Other rewarding information derived from the Pennsylvania questionnaires is evidence that The Five Sense Store has not acquired the elitist overtones that many had feared would result with large scale implementation. Its acceptance and popularity are remarkably uniform over various ability and social-economic levels.

Other Studies of Response to Aesthetic Education:

Studies of aesthetic education materials have not been limited to those of the comprehensively documented implementation in Pennsylvania. During the 1971-72 school year, the Aesthetic Education Program conducted a study[3] of other teachers who had dealt with Relating Sound and Movement, Creating Characterization, Constructing Dramatic Plot, and Meter.

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[3] Kunkle, J. Riley, Aesthetic Education Program Initial Survey of Selected Implementation Sites 1971-1972 (St. Louis: CEMREL) 1972.

One hundred-eight specially-designed teacher questionnaires and 423 student questionnaires were returned from eleven states. Some of the significant findings here were that:

1. For each set of materials, most teachers felt that the teacher's guide was adequate in its explanation of the content and its relationship to aesthetic education, its outline of procedures, its description of criteria to assess student learning, and its general organization.

2. The rest of the materials (films, puzzles, etc.) generated a highly positive evaluation from teachers in terms of their quantity, appearance, durability, and general usability.

3. When asked to indicate whether or not they would recommend the materials they taught to other teachers, the response was overwhelmingly positive.

4. A clear majority of teachers using each set of materials indicated that their students looked forward to each lesson, many with great excitement.

5. There were many reports of a significant number of students engaging in self-initiated activities, i.e., bringing package-relevant materials from home, voluntarily working with the materials between regular classes, raising questions not covered in the regular activities, and trying to relate or generalize the content to other school subjects.

6. A majority of students replying to the questionnaire rated their experiences with the materials as "happy" or "very happy" ones.

7. Most students indicated that they would enjoy having another package related to the topic they just studied.

8. For each set of materials, a large majority of students indicated that ~~they~~ felt they had learned something from the experience.

9. For each set of materials, most students felt that the materials they had worked with looked "really nice." Large majorities also indicated that the vocabulary used in the packages was appropriate to their reading level.

Probably the most significant negative information to date regarding the materials is the seeming inability to shake many teachers from the widely held idea that aesthetic awareness can only be taught by those who can perform or create in one or another arts area. While the Aesthetic Education Program materials recognize the important place of the specialist in arts education, there is strong evidence that further effort is needed to convince all teachers of the complementary roles of performance skills and perceptive abilities.

Two other studies were undertaken as summative studies of the materials but were not completed because of an alteration in the contract for FY 1974. This year, 1975, will mark the completion of the development of the Aesthetics and Creative

Process series. As the behavioral, can-do goals of the materials are stated primarily at the series level, the deleted study of this completed series was to become the first large-scale test of the materials' ability to change the way in which students deal with and react to the aesthetic dimension. A recently completed small scale study regarding this series indicates that appropriate changes are indeed occurring.

Through this process of examining both product and process at the short, intermediate, and long-term levels we hope to provide a comprehensive picture of aesthetic education as it must be examined by those who will judge it.

In the following section, three reports summarize the evaluation activities of the Aesthetic Education Program. These three reports were originally published as articles in the Bulletin of the Council for Research in Music Education, Fall, 1975. In addition, a list of all evaluation reports, papers, and studies are included. These represent the total evaluation effort of the Program -- nearly a hundred documents on or about the evaluation of the Program's instructional materials and implementation strategies.

FORMATIVE EVALUATION IN THE AESTHETIC EDUCATION PROGRAM

One of the major concerns of this country's educational establishment is the evaluation of the quality of instructional materials. Currently educators are becoming more aware of their responsibility to discover how well their instructional materials actually work. With the Cooperative Research Act of 1965 and the establishment of large-scale federally funded curriculum projects, the question of the worth of the products resulting from curriculum projects came into focus. This attention ushered in the age of educational evaluation.

For many years educators have used the term "evaluation" in a number of ways. For some, evaluation refers to the grading of students; for others it means essentially the same as measurement. Still others equate evaluation with traditional research design. Research focuses on the determination of the presence or absence of a significant difference. Evaluation concerns itself not only with discovering whether a difference exists but also seeks to determine whether or not that difference is desirable. Evaluation theorist Michael Scriven has observed that "evaluation consists of an assessment of merit"[1]--that is, appraising the worth of what is being evaluated. This is the definition of evaluation subscribed to by the Aesthetic Education Program (AEP). Consequently, an underlying assumption of the Program is that a competent evaluation of a curriculum project will take cognizance of many criteria in reaching an assessment of merit.

A second underlying assumption held by CEMREL's Aesthetic Education Program is that evaluation designed to improve its materials during the development process is essential to insure a quality finished product. The AEP instructional units are evaluated mainly to improve the materials themselves during the development cycle. It is important to distinguish this role of evaluation during the developmental process from evaluation after the process has been completed. Evaluation during the developmental process with the major objective of improving a program is known as formative evaluation. Evaluation of a product after development is completed is defined as summative evalution. A formative evaluation is more partisan than a summative evaluation. The latter brings external objectivity to the assessment of a program's merit in comparison to other programs or to no program at all. Since the major goal of evaluation in the Aesthetic Education Program is to improve the curriculum units, its role is primarily formative.

A third assumption held by the AEP evaluation staff is that both product criteria and process criteria are of equal importance in conducting the formative evalution of instructional units. By examining the learner behaviors produced as outcomes of the individual curriculum units (product criteria) as well as the internal characteristics and intrinsic worth of the content of the materials (process criteria), evaluation can make informed suggestions as to what aspects of individual instructional units need revision. While it is important to recognize the difference between product and process criteria, it is also essential to examine both.

A fourth position held by the evaluators which warrants special emphasis, is that it is important to assess merit but equally as important to supply information for decision making. The evaluation staff selects and presents information to the Program and makes subsequent recommendations on both the status and the worth of the materials.

It is, however, the Program which takes the evaluation staff's value judgements and makes the final decisions. This role is dictated largely by the place formative evaluation holds in the Program.

The development and implementation of any "operational" model for formative evaluation is heavily influenced by the organizational structure of the support source. The organizational structure underlying CEMREL's Aesthetic Education Program places major emphasis on the development and implementation of curriculum units. The majority of the Program's personnel, resources, and services are allocated to production of instructional units. Consequently, the evaluation staff performs a support/service role. While the actual evaluation procedures and judgements are arrived at independently of Program control, the support/service role of the evaluation component has both assets and liabilities. On the positive side, this role permits a relationship between the evaluation and development staffs which is compatible, informed, and mutually trusting and respectful. This positive relationship insures ease of evaluation implementation, invaluable interchange of ideas, and a much higher probability of Program improvement based on objective information. On the negative side, constant vigilance is required to guard against both a loss of ethical objectivity and independence on the part of the evaluation staff, and a dangerous dependency by the curriculum developers on the evaluators to help formulate content, and, thus, become inseparable from the development process. This relationship is especially delicate when merging the scientific world of evaluation with the experiential, philosophical world of the arts and aesthetics. In the Aesthetic Education Program, emphasis is placed on measuring what can be measured as opposed to super-imposing strict behavioral objectives amenable to measurement. Because student outcomes are the focus in the early stages of development, it is extremely important for the evaluators to be involved from the onset to delicately promote the formulation of goals so that they can later be measured objectively. Thus, the evaluation model for the Aesthetic Education Program calls for different objectives and methodologies at each level of product development.

Evaluation Model

The role evaluation plays expands as the products progress through the development and testing cycle. Consequently, evaluation objectives expand at each level of development as the Program progressively relinquishes control over the implementation of the materials. Hence, the role of evaluation is one of increasing independence, control, and objective examination. Figure I illustrates this progression and the changes in methodology which accompany it. Thus, while the evaluator may act as an observer/consultant/facilitator on a given set of materials during the early experimental stage, at the second level of evaluation (hothouse stage) she or he assumes the more objective role of observer/evaluator/judge. Finally, at the pilot level of the evaluation, the evaluator assumes the stance of researcher. This evaluation model produces a complex system of checks and balances both between evaluation and development, and between the three stages of the evaluation component.

Evaluation Procedures

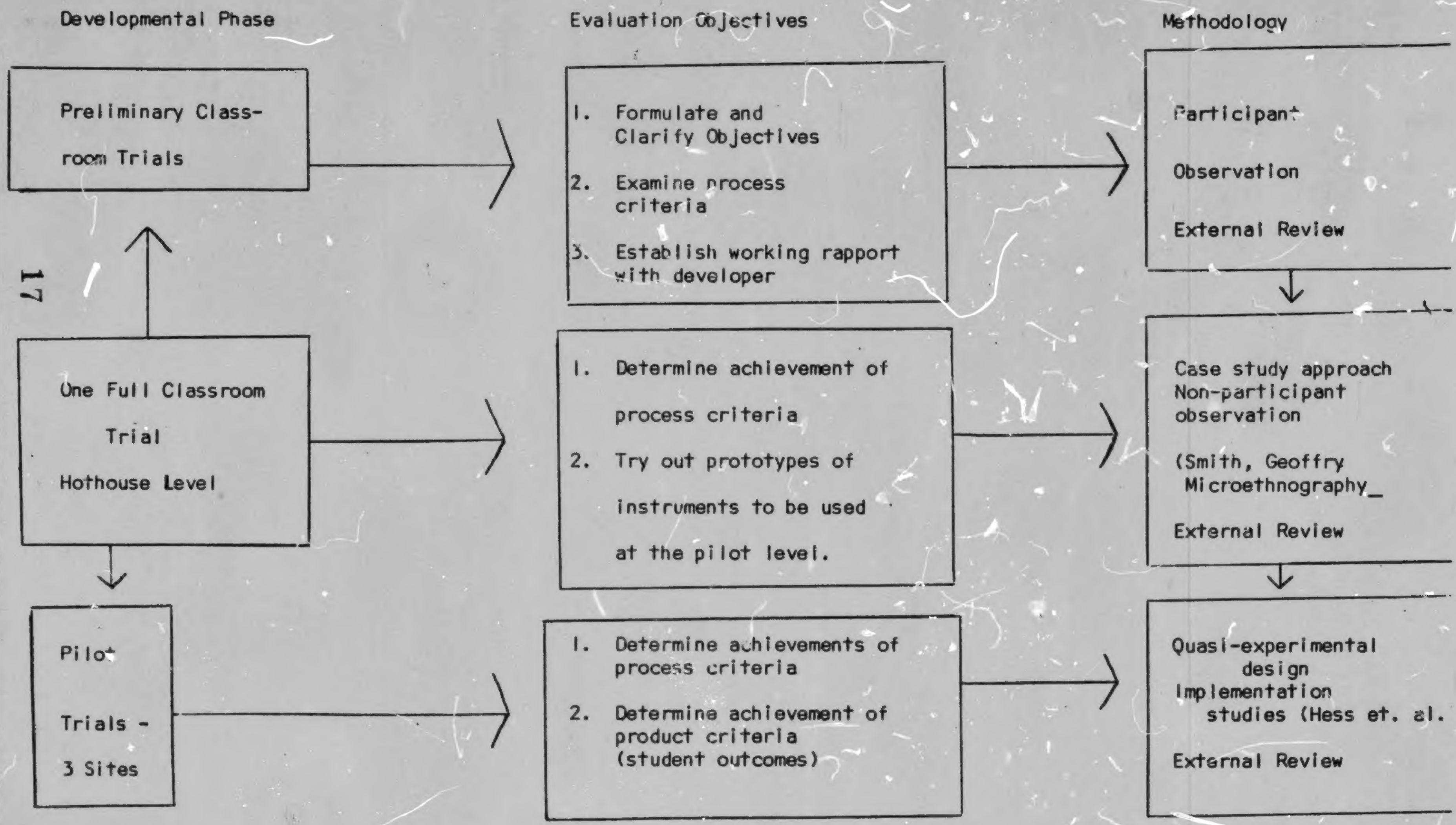
A) Preliminary Classroom Trials

Prior to the first complete classroom trial of a set of materials ("hothouse"), a member of the evaluation staff aids the developer in identifying those activities and materials which contain potential problems. These are tried out in the classroom with small groups of children or with an entire class, depending on the nature of the activity and the problems expected. At this stage it is usually the developer rather than the teacher who directs the childrens work. The evaluator observes these sessions and helps the developer analyze the children's behaviors for evidence of ability to perform the tasks called for and to comprehend the underlying concepts. At the same time, he or she observes the amount of interest and enthusiasm elicited by the materials.

At this time, the evaluator also examines the materials for logical sequencing of concepts and carrier activities, clarity of learning objectives and teaching instructions, and appropriateness of the content and expected student outcomes for the developmental level of students in the target population. Also a major concern is how the content of the unit fits conceptually with the overall goals of the Program and, particularly, with the objectives of the series of which it is a part. Revisions needed in the unit before a full classroom trial can be attempted are discussed and incorporated into the materials. Ideas for appropriate methods of assessing student outcomes are also discussed and the evaluation team begins preparing prototype instruments for testing during the hothouse trial of the unit.

When the various elements of the set of materials--Teacher's Guide, student books, games, slide/tapes, card decks, etc.--have been revised and assembled into the first complete draft of the instructional unit, the developer "teaches" the unit to the entire staff at a "General Review." Suggestions and criticisms are recorded by the hothouse evaluator and become part of the data guiding the revision. At this time, the unit is also sent out to a content expert not affiliated with the Program who is asked to

EVALUATION MODEL Figure 1


Developmental Phase
Evaluation Objectives
Methodology
Preliminary Classroom Trials
One Full Classroom Trial Hothouse Level
Pilot Trials - 3 Sites
1. Formulate and Clarify Objectives
2. Examine process criteria
3. Establish working rapport with developer
1. Determine achievement of process criteria
2. Try out prototypes of instruments to be used at the pilot level.
1. Determine achievements of process criteria
2. Determine achievement of product criteria (student outcomes)
Participant
Observation
External Review
Case study approach Non-participant observation
(Smith, Geoffry Microethnography_
External Review
Quasi-experimental design Implementation studies (Hess et. al.
External Review

criticize the set of materials on the following criteria:

appropriateness of the unit for its intended age level,

clarity of unit concepts, and importance of these concepts for this age level,

clarity and sequencing of unit objectives, and importance of these objectives for this age level,

originality of the unit,

teachability of the unit,

fair representation of minority groups and women in unit materials,

outstanding strong points and weak points,

changes they would make if the unit were theirs.

B) Hothouse Trial

The next step in the formative evaluation of the unit involves the systematic observation and description of a teacher and a group of students as they work through the complete set of materials. The teacher is given an opportunity to examine the Teacher's Guide and materials and then to meet with the developer and the evaluator. The evaluator documents the teacher's opinions and impressions of the unit at this time and any clarification needed from the developer to supplement the Guide. The primary procedures used to evaluate the unit at this stage are again explained:

a. Every session during which the unit is taught is observed by a member of the evaluation staff, and usually, the developer. Their notes are supplemented by a transcript made from the tape recording of each session.

b. An in-depth interview is conducted with the teacher by the evaluator upon completion of the unit.

During the initial classroom trial, the teacher does the actual teaching or management of the set of materials; however, he or she may call for assistance from the developer or the evaluator/observer when needed. The observational method used during the hothouse phase of Aesthetic Education Program materials is based on the work of Louis M. Smith and William Geoffrey in their *The Complexities of an Urban Classroom* known as "classroom ethnography."[2] While Smith and Geoffrey mainly viewed the classroom as a social system and focused their observations, interpretations, and analyses in this light, the Aesthetic Education Program focuses observations, interpretations, and analyses on the educational transactions brought about by a particular set of materials in a classroom situation. Observation techniques are not without disadvantages. For example, the presence of the observer may influence the behavior of the subjects in the situation. Systematic observation is also second-hand and depends upon the skill and objectivity of an observer who, being human, may have inherent biases. But these faults are easily outweighed by the advantages--primarily that the recording of the behavior occurs simultaneously with its occurrence. Many other evaluative techniques depend entirely on retrospective reports on human behavior by the subjects under study. These subjects, who are frequently very young children, are often unable to report appropriately or can do so only in a reflective mood in which they are detached from the factors which influence what they would do or say in the actual situation. Filming or videotaping classroom sessions, while providing maximum objectivity, remains an expensive and unwieldy process and is considerably more intrusive than a human observer who tends to become "part of the scenery" after a short period of time. Since such factors as recall, detachment, and intrusiveness may significantly distort other methods of assessing classroom transactions, systematic observation remains the technique best suited for gathering formative data regarding Aesthetic Education Program materials during the early stages of their development.

As they complete the teaching of the unit, teachers are asked to fill out a questionnaire about their experiences with the materials. The topics covered in this questionnaire are:

(1) the number of students taught, their grade and ability level,
(2) the teaching schedule for the unit,
(3) the average time spent in preparation and teaching of the lessons,
(4) the amount of assistance required to teach the unit (if any),
(5) the teacher's educational background, teaching experience, and involvement in the arts,
(6) the teacher's opinions about the various componenets of the unit,
(7) the teacher's impressions about student reaction to the unit.

The information obtained is then used by the evaluation staff to structure a final in-depth interview with the teacher. Before the interview it is explained to the teachers that their opinions will guide the revision of the unit, and they are encouraged to be candid. The teachers are made aware that the interviewer is a member of the evaluation staff and has had no role in the development or writing of the set of materials. Transcripts of the interviews are analyzed and the comments categorized according to the following topics: initial reaction to the unit, suggested grade level, suggested teaching pattern, opinion of teacher's guide, content, materials, student reaction to the materials, and perceived effects on students. Information is also collected from the teacher on the following variables:

neighborhood and type of family served by school; physical facilities of the school and classroom; student scores on I.Q. and reading tests; the teacher's educational experience, teaching style, interest in the arts, and attitude toward aesthetic education.

Ideally, the site chosen for this initial classroom trial should represent average conditions with respect to the teacher's involvement with the arts, socioeconomic status, and class size. In practice, such an "ideal" site is sometimes not available when needed. When such a situation occurs, careful attention is given to the selection of the subsequent pilot test sites so that the potential source of bias introduced by the atypical factor is counter-balanced.

Prototypes of evaluation instruments, which will be used later at the pilot stage, may be tested with the hothouse class, providing data pertinent to both assessing student outcomes of the hothouse trial and for refining the testing instruments and procedures themselves. Additional evaluation information is derived from informal discussions with the teacher during the teaching of the units, from the judgments of the developer, and from analysis of any student products resulting from the unit activities.

The hothouse evaluator collects and analyzes this information for the formal hothouse report which focuses the data collected on the following concerns:

a. the nature of the student/teacher interaction with the various components of the package,

b. the design and everyday usability of the materials,

c. the ability of students to demonstrate the behaviors desired by the developer

d. unanticipated congitive, affective, or social student outcomes,

e. needed revisions,

f. evaluation techniques which may be useful at later stages of the development and testing cycle.

For a set of materials to move on into the third (pilot) stage of testing, the information obtained from the hothouse trial must demonstrate effectively that the unit either fulfills the following criteria or can do so successfully after the suggested revisions have been incorporated.
These criteria are:

a. The teacher was able to comprehend the content and instructional procedures of the instructional unit and implement them successfully in most activities.

b. The content and instructional procedures had a positive effect on the behavior and interaction of the children and the teacher.

c. The materials associated with the unit are adequate to their task pedagogically and in their design and construction.

As the unit is being revised, the evaluation staff prepares for the pilot testing of the materials. Instruments used to assess student outcomes at the hothouse trial are revised and refined. Weaknesses observed in the materials during hothousing may call for additional process evaluation during the pilot trials to insure that the changes made have indeed eliminated the observed difficulty. On the other hand, the discovery of unanticipated positive outcomes resulting from the hothouse trial may necessitate the creation of entirely new instruments.

C) Pilot Trials

The pilot trials represent the final testing phase in the formative evaluation of Aesthetic Education Program materials. Based on their results, the evaluation staff recommends that a set of materials should be revised for publication or recycled through any or all stages of the development cycle. This judgement is based on the ability of the materials to meet both process and product criteria. Although the data generated to determine accomplishment of these criteria overlap in evaluation procedures, an attempt is made to make as fine a distinction as possible between the two. Pilot tryouts are also conducted at three sites representing diverse socio-economic levels and ethnic groupings so that any evidence of bias due to these factors can be uncovered at this time and appropriately remedied.

Consequently, the design of the pilot trials is the most rigorous and the most comprehensive of the three evaluation stages. The evaluation design at the pilot level encompasses much more than a typical research design.

Process Methodology

Process variables are examined using a variety of data-gathering devices. Teachers evaluate individual activities through the use of questionnaires and checklists imbedded itno teacher's guides. Structured teacher interviews, and sometimes student interviews, uncover specific problems encountered in implementation and/or unanticipated effects the materials may produce. Random spot observations, mainly aimed at determining the degree of implementation in relation to student outcomes, offer process information as a side benefit. Outside experts again review the materials on a variety of issues and provide suggestions for revisions.

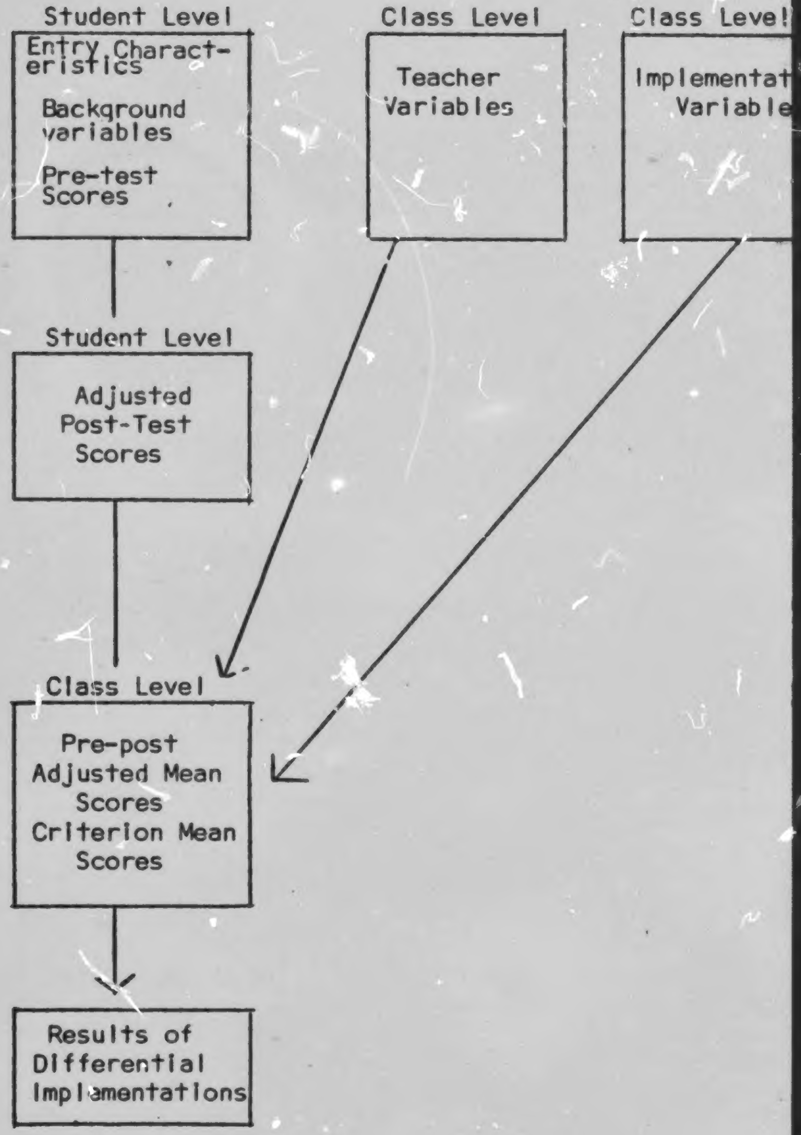
Product or "Pay Off" Methodology

The aspect of the pilot evaluation design focusing on product variables is the most rigorous component of the pilot trials. The typical pretest/posttest/control group design does not account for differences in quality and degree of implementation. In addition to determining how student entry characteristics (including background variables and pretest scores) and teacher characteristics affect implementation of the units, the AEP pilot design makes it possible to relate student performance on outcome measures to how well the unit was implemented. This design is illustrated in Figure 2. Variables which remain fairly constant across curriculum units are teacher characteristics and characteristics describing the degree of implementation. Student characteristics including background variables, entry behaviors, and outcome measures are tailored to the goals and objectives of each curriculum unit. With this design it is possible to attribute different student outcomes to specific variables outside the treatment, but, in addition the evaluator can also determine how specific factors within the implementation affect student outcomes.[4]

Figure 2

Evaluation Design

Measuring Achievement



A. Student Characteristics.

The determination of student entry behaviors and the choice of which background variables will be examined is largely dependent on the nature of the content and objectives of the curriculum unit being evaluated.

A kindergarten-first grade unit entitled Part and Whole in which students are encouraged to distinguish the various parts which make up a whole work of art will serve as an example. The unit uses exemplars drawn primarily from the visual arts. Hence, it was felt that visual perception was the significant student behavior to be examined in the evaluation of this set of materials. Since such factors as age, sex, and ethnic background have been shown to influence the nature of a child's visual perception, these data were collected on each student using the unit. Student background variables are gathered from school and classroom records and by empirical observation.

In testing the Part and Whole unit, two measures of visual perception were used to determine the entry and exit characteristics of the students[3]. The Children's Embedded Figures Test (CEFT) is a standardized, individually administered embedded figures test for ages five to twelve developed by Karp and Konstadt. An in-house instrument, the Visual Part/Whole Test, was designed to measure the child's ability to correctly identify, among several alternatives, the part taken from a whole picture. This measure was also individually administered and consisted of subscores on proportion, color, pattern, shape and part/whole. Incorrectly chosen alternatives were held constant on all but one of the four dimensions. Thus when a child incorrectly identified a picture part, it could be determined in which of the five areas he seemed to have difficulty.

B. Teacher Characteristics

The teacher variables typically examined for all units are: years of teaching experience, level of education; arts experience; attitudes toward aesthetic education; and prior experience with AEP and other learning packages. These data are obtained from a teacher questionnaire.

C. Factors Affecting Implementation

Information on implementation variables is obtained during unannounced random classroom observations. A trained evaluator/observer using a checklist of implementation variables rated on a 5 point scale gathers the implementation data. These observations usually take place on an average of twice a week or 12-15 times during a 6-8 week unit. The implementation variables which are examined are listed on the sample pilot observation form presented below.

Implementation Variables:

a) 0 1 2 3 4 Quality of classroom discussion.

b) 0 1 2 3 4 Teacher preparedness for this activity

c) 0 1 2 3 4 Correct following of procedures from Teacher's Guide (management, sequencing, etc.)

d) 0 1 2 3 4 Amount of teacher/student interaction.

e) 0 1 2 3 4 Quality of teacher/student interaction.

f) 0 1 2 3 4 Proper use of materials as outlined in Teacher's Guide.

g) 0 1 2 3 4 Clarity of presentation to students.

h) 0 1 2 3 4 Amount of transfer to other subjects.

i) 0 1 2 3 4 Amount of activity covered.

Teacher Variables:

j) 0 1 2 3 4 Amount of positive reinforcement given to students

k) 0 1 2 3 4 Teacher affect/enthusiasm towards the lesson.

l) 0 1 2 3 4 Teacher effectiveness in maintaining student attention.

m) 0 1 2 3 4 Teacher effectiveness in eliciting student response.

Student Variables:

n) 0 1 2 3 4 Student interest/affect toward the lesson.

o) 0 1 2 3 4 Student understanding of activitiy's concept(s).

p) 0 1 2 3 4 Percent of students actually involved.

Rating Guide

0 = Very poor to bad (0-20%)
1 = Inadequate (20-40%)
2 = Adequate (40-60%)
3 = Good (60-80%)
4 = Very good or excellent (80-100%)

D. Student Outcomes

Student outcomes are determined by using a detailed process of analysis which takes into account all the measurable student entry characteristics, teacher characteristics, and factors affecting unit implementation in the classroom. Both pre and post measures as well as criterion-referenced measures are developed specifically for the curriculum unit and administered following termination of the unit in the classroom. The Part/Whole evaluation is a good illustration of this process. All students receiving the unit of instruction were pre-tested and post-tested using the CEFT and the Visual Part/Whole test. Control groups were also tested pre and post. Variances due to age, sex, and race were accounted for. Also accounted for were variances due to differences between students and between classes as determined by pre-test scores. A third set of scores adjusted for these variances were then tested for significant differences between treated students and their matched controls. While this first analysis appeared to uncover no significant differences, when the degree of implementation variables was regressed onto the treated groups' class mean score, it was found that there was a significant difference when the instructional unit received a high implementation. When it was poorly implemented, the treated students' scores were lower than those of the controls. The wide range in degree of implementation among the three treated groups was masking the real effects of the materials.

The pre-and post-testing of the control groups also allowed the evaluator to get an estimate of reliability on the in-house measure.

In summation, the pilot trials of aesthetic education materials examine the ability of the instructional units to meet both the process criteria as well as the product criteria which the Aesthetic Education Program has determined for each set of instructional materials.

Summary

The efforts of an evaluation component in CEMREL's Aesthetic Education Program are primarily formative, that is, directed toward the improvement of the individual units of instruction during their development. As a result, evaluation activities are incorporated into the development process at every stage to provide the curriculum developers with the immediate and continous feedback they need for effective decision making. Figure 3 diagrams this intertwining of evaluation with developmental procedures as they occur chronologically.

A evaluation model delineating the objectives and methodologies used at each level of product development was presented and explained. Briefly, these stages were preliminary classroom trials, hothouse trial and pilot trials. The corresponding methodologies employed by the evaluation staff at each stage are participant observation, non-participant observation (case study) and quasi-experimental design. The specific procedures used and the data resulting from each stage were also described and include provisions for systematic feedback from teachers and students, the of formal instrumentations designed to assess specific student outcomes, and the counsel of content experts independent of the Program. At key points in the development process these data, compiled, analyzed and interpreted by the evaluation staff, are reviewed by the total staff. Depending on the magnitude of the problems uncovered in the evaluation of the materials at these points and the projected ease with which they can be solved, the unit may be revised and advanced to the next stage of development, revised and routed back for further testing, or discontinued.

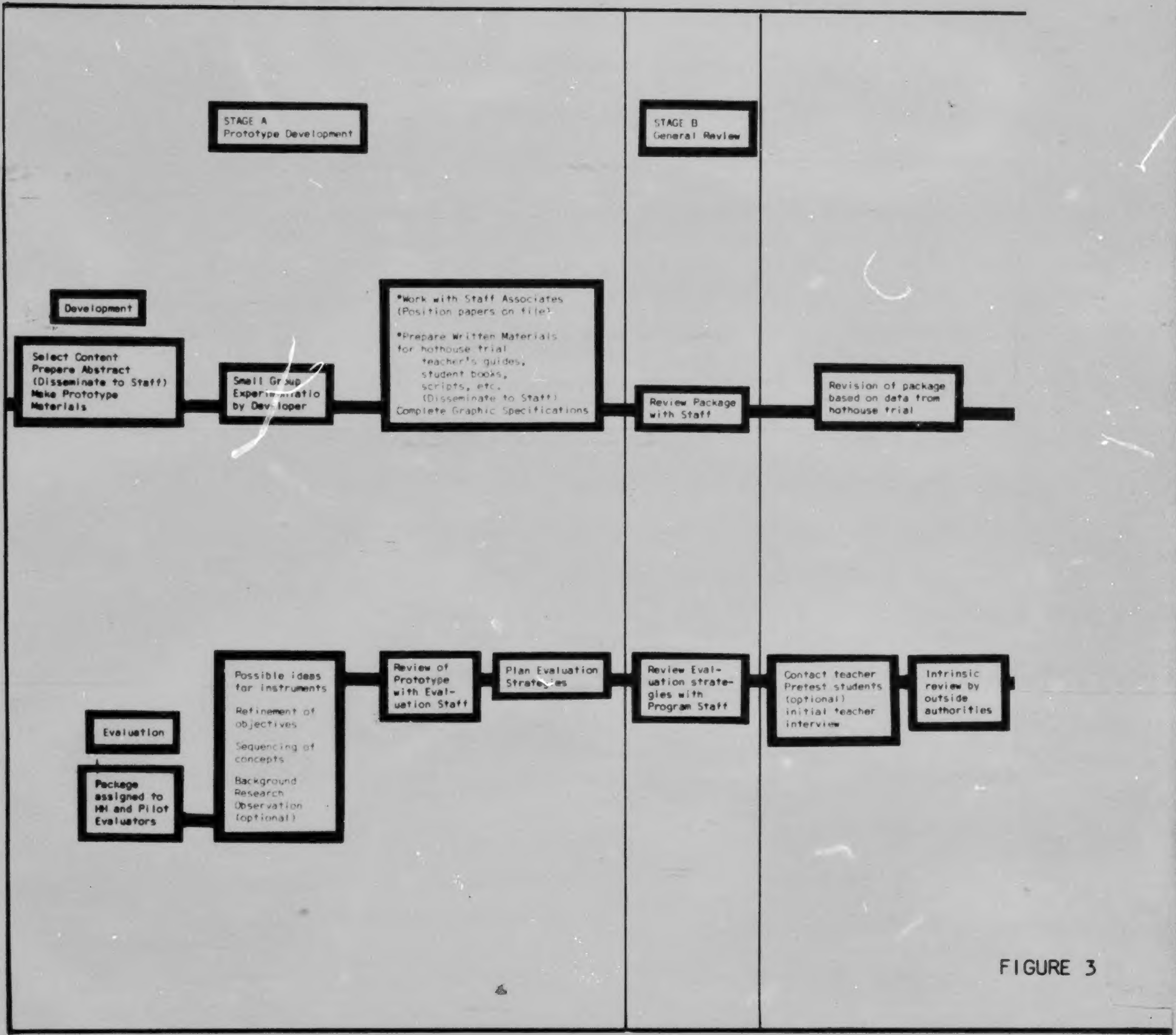
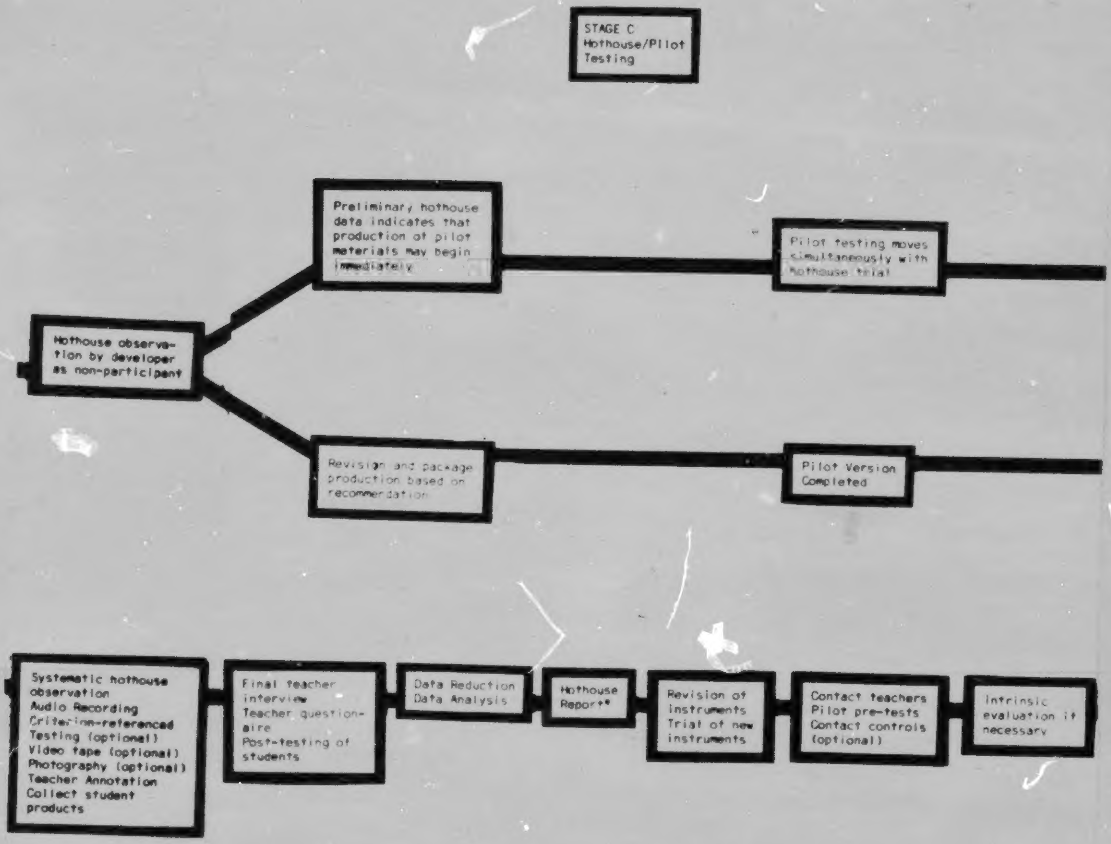
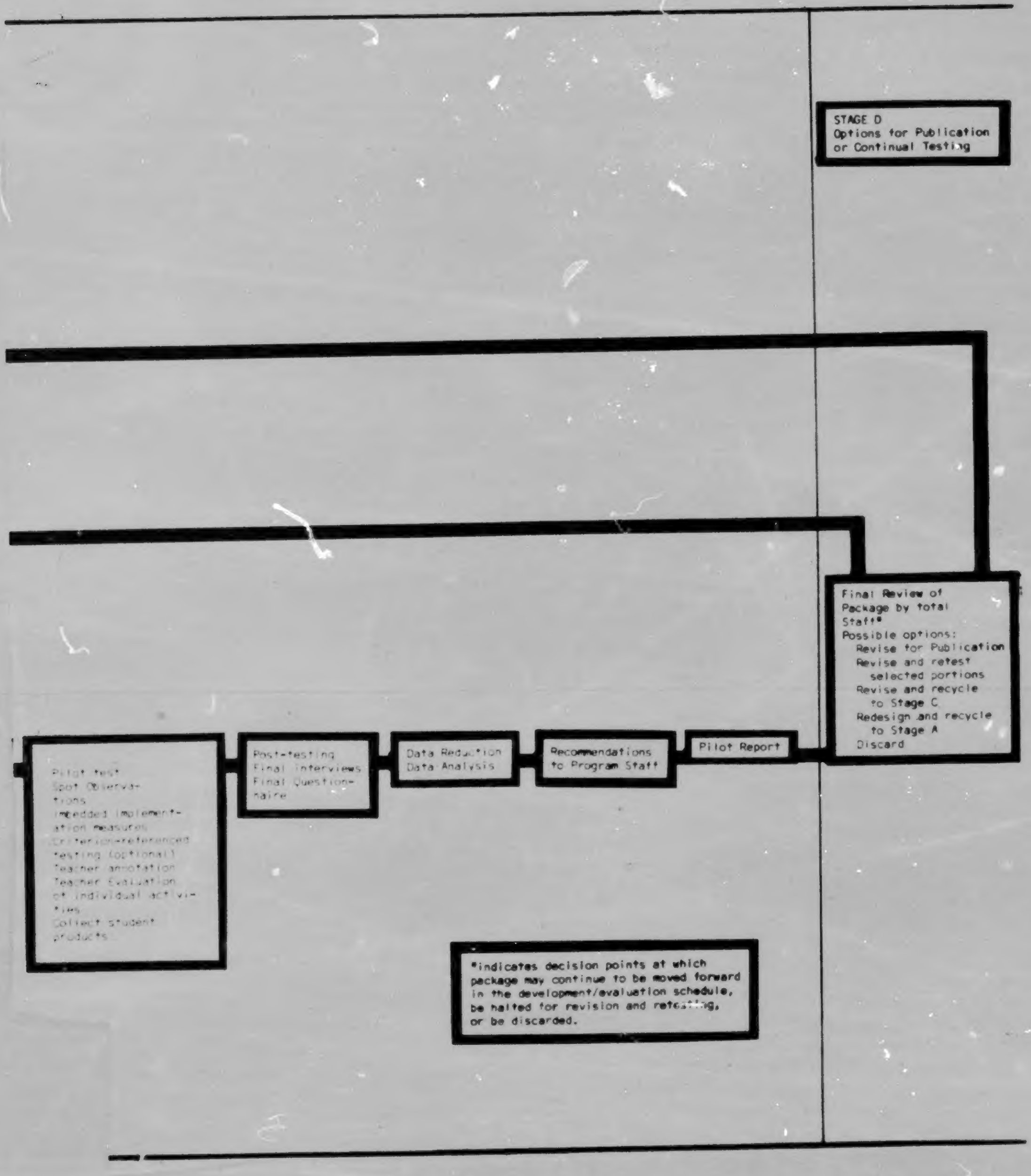

STAGE A
Prototype Development
STAGE B
General Review
Development
Select Content
Prepare Abstract
(Disseminate to Staff)
Make Prototype
Materials
Small Group
Experimentatio
by Developer
*Work with Staff Associates
(Position papers on file)
*Prepare Written Materials
for hothouse trial
teacher's guides,
student books,
scripts, etc.
(Disseminate to Staff)
Complete Graphic Specifications
Review Package
with Staff
Revision of package
based on data from
hothouse trial
Evaluation
Package
assigned to
HH and Pilot
Evaluators
Possible ideas
for instruments
Refinement of
objectives
Sequencing of
concepts
Background
Research
Observation
(optional)
Review of
Prototype
with Eval-
uation Staff
Plan Evaluation
Strategies
Review Eval-
uation strate-
gies with
Program Staff
Contact teacher
Pretest students
(optional)
initial teacher
interview
Intrinsic
review by
outside
authorities

FIGURE 3


STAGE C
Hothouse/Pilot Testing
Hothouse observation by developer as non-participant
Preliminary hothouse data indicates that production of pilot materials may begin immediately
Pilot testing moves simultaneously with hothouse trial
Revision and package production based on recommendation
Pilot Version Completed
Systematic hothouse observation
Audio Recording
Criterion-referenced Testing (optional)
Video tape (optional)
Photography (optional)
Teacher Annotation
Collect student products
Final teacher interview
Teacher questionaire
Post-testing of students
Data Reduction
Data Analysis
Hothouse Report*
Revision of instruments
Trial of new instruments
Contact teachers
Pilot pre-tests
Contact controls (optional)
Intrinsic evaluation if necessary

TESTING AND DEVELOPMENT CYCLE


STAGE D
Options for Publication
or Continual Testing
Pilot test
Spot Observations
Imbedded implementation measures
Criterion-referenced testing (optional)
Teacher annotation
Teacher Evaluation of individual activities
Collect student products
Post-testing
Final interviews
Final Questionnaire
Data Reduction
Data Analysis
Recommendations to Program Staff
Pilot Report
Final Review of Package by total Staff*
Possible options:
Revise for Publication
Revise and retest selected portions
Revise and recycle to Stage C
Redesign and recycle to Stage A
Discard

*indicates decision points at which package may continue to be moved forward in the development/evaluation schedule, be halted for revision and retesting, or be discarded.

Footnotes

1. Michael Scriven, quoted in Evaluating Instruction by W. James Popham (Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1973, p. 10).

2. Louis M. Smith and William Geoffrey, The Complexities of an Urban Classroom, (New York, New York, Holt, Rinehart and Winston, Inc., 1968.)

3. Patricia Thuernau and Eileen Buseman, Part and Whole: Pilot Evaluation Report (report in progress.)

4. The method of analysis and utilization of implementation data at the pilot stage is based on the work of Robert J. Hess, formerly Evaluation Specialist for CEMREL's Language and Thinking Program.

Source Materials

1. Patricia Thuernau and Betty Hall A Plan for the Hothouse Evaluation of Aesthetic Education Program Materials, (unpublished paper prepared for CEMREL's National Advisory Committee, April, 1974).

2. Albert LeBlanc, A Plan for the Pilot Evaluation of Aesthetic Education Materials, (unpublished paper prepared for CEMREL's National Advisory Committee, April, 1974.)

3. William J. Wright and Robert J. Hess, Criteria Acquisition for Product Advancement: A Multistage Model for Evaluation, (St. Ann, Missouri, CEMREL, Inc., 1973.)

THE ROLE OF RESEARCH IN THE AESTHETIC EDUCATION PROGRAM

From the start of the Aesthetic Education Program, the staff has been committed to the idea that a research component had to be an integral part of the curriculum development process. In practice, the commitment has led to a variety of functions for research. First, early in the Program's history, there was an extensive review, analysis, and classification of existing and relevant research in aesthetic education. Secondly, existing research--in child development, in creativity, in learning theory--has been used by the Aesthetic Education Program developers to resolve basic curriculum issues and to help structure particular activities. The third type of research activity is carried on by evaluators who develop instruments to measure student achievement as a result of work with a given set of curriculum materials. Finally, there has been an ongoing program of research on the program itself--its effects on teachers and students and the problems of implementation. This last type of research is discussed in the "Overview" that begins the Evaluation and Research section of this report. The nature and purpose of the first three types of research within the Aesthetic Education Program is explored in this article.

Review of Research in Aesthetic Education

One of the first research efforts in the Aesthetic Education Program was an extensive Review and Index to Research Relevant to Aesthetic Education, 1900-1968 undertaken by Thomas J. Johnson. The purpose of the review was:

> ...to present an overview of the "state of the art," to provide a reliable and useful summary of the research findings, knowledge, and tests that are available and to develop an index to these research studies that would give researchers, principals, teachers, curriculum supervisors, and other educational personnel ready access to any information relevant...aesthetic education.[1]

Such a review would be helpful, then, not only to curriculum developers within the Aesthetic Education Program, but to the general educational community. It could serve as a source of data useful to school personnel as they made decisions as to the type of education children would receive.

Johnson produced a Review and Index of Research in four fields relevant to aesthetic education--creativity, literature, film, and educational media. Each was published in a separate volume. None of these undertakings was a mere listing of existing research but was, instead, an attempt to "provide a suitable conceptual framework for interpreting the findings of the individual studies...provide insight into the cumulative 'knowledge' in the area."[2] To fulfill these purposes, Johnson developed category systems for each of the fields he surveyed. These systems are summarized below.

The studies concerned with creativity, literature, and film were categorized according to Independent Variable Parameters -those the experimenter controlled and manipulated, Subject Parameters--the qualifications and characteristics of subjects participating in the experimental situation which effect how they react, and Dependent Variable Parameters or outcome measures in the experimental situation. Further, the studies were classified as follows:

Type I: If all three classes of topics are treated simultaneously in a research study, it can be classified as Type I. In this type of study, one or more stimulus dimensions are varied, subjects are randomly assigned to treatments, (or relevant characteristics of the subjects involved in the study form a basis for stratification) and the variation in one or more of their responses is observed. This research paradigm represents the classical type of empirical study in which an independent variable is carefully manipulated and the response, or dependent variable, is subsequently measured.

Type II: If only response-response relationships are considered in a study, it can be classified as Type II. In this type of research the correlation between two responses is investigated, and stimuli related to the responses are not systematically varied.

Type III: If only aspects of subject characteristics and their responses are considered, the study can be classified as Type III. In this type of study, the relationship between certain subject characteristics and certain responses is the manifest objective of the research, and no systematic variation of any stimulus dimension is represented.

Type IV: Articles which do not readily fit into any of the above three types can be placed in Type IV. These articles are generally theoretical in nature, although they may focus on methodological discussion and its measurement. (p. 19 Creativity Index)

The classification system for the media survey was somewhat different and will be explained below. For all the Reviews, the intention was to provide a format which would allow curriculum developers and school personnel to compare and interrelate the large numbers of studies. Doing so involved divising sub-categories which applied to each field surveyed.

Creativity: Johnson, from his review of the studies on creativity, developed a format of classifications which allowed him to group the studies in a coherent and conceptually sensible form. There were five independent variable parameters identified. These included such items as general sensory stimulation (e.g., visual, auditory, kinesthetic); art forms and products; subject matter concepts; and the order and organization of the stimuli. Johnson also categorized the studies according to both the task the subjects were asked to perform and the nature of the experimental group. The latter set of sub-categories included the structure and cohesiveness of the group and the intelligence, socio-economic status, and educational levels of its members. Finally, the dependent or outcome variables formed the basis of classification. Such variables included the productivity and originality of the experimental group, cognitive achievement, and affective changes in the group.

Johnson constructed parallel sub-category systems for the areas of film and literature. In each review, the four sets of categories (independent variables, task group, and dependent variable parameters) were placed on a set of matrices. A curriculum developer or consumer can readily find studies relevant to his/her problem by reading the matrices and then using the Index.

Media: After surveying the literature of research on media, Johnson developed a scheme for the Index which was different from that used in the other indices. As with the other fields, it was the nature of the research which dictated the classification scheme. For media, the studies included in the Index fell into two categories: 1) research studies, describing the results of experimental manipulation of variables involved in instruction, and 2) theoretical studies, interpreting and summarizing empirical data or doing guidelines for practice or research. His rationale for the division and his sub-categories were:

> In attempting to review and summarize the research studies relevant to media, three factors seem to be predominant. First, the topic area or content of the study is important; secondly the media treatment varied is important; and thirdly the nature of the response of the subject which is observed is important.
>
> If a listing is made of all topics of instruction in grades K-12 and of all media employed in education and educational research, along with a workable taxonomy of subject responses, these three listings may be treated as separate dimensions, and studies located in this three-dimensional matrix according to their content. The location of studies in this manner will not only provide a necessary framework for a listing of findings but in itself may reveal some of the interrelationships among the studies, and indicate the amount of research done in various areas.[3]

The classifications, as outlined above, will be: 1) media, 2) subject area, and 3) response area. Since each of these areas is essentially independent of the others, they may be combined and recombined in a large number of ways to provide a reasonably concise and flexible method of presenting both the distribution of the studies and a summary of their findings. Classifications seemed necessary however, since few articles in this class are so detailed as to treat only a specific media, subject area, or response.

Superimposed over the above classification is a classification of theoretical types. That is, studies are classified as either: 1) media theory articles, 2) reviews and bibliography articles, or 3) tests and measurement articles. These theoretical classes are first separated, then a media subject organization is imposed within each class.[4]

The Reviews of Research relevant to aesthetic education were, then, exhaustive surveys of studies undertaken in the areas of creativity, literature, film, and media. Instead of simply listing the available studies, the goal was to develop an index which would be a service to those whose interest in research was not academic--to those who intended to use research studies as a basis for informed curricular and instructional decisions. The classification schemes developed by Johnson were intended to allow ease of comparisons, of drawing relationships among studies, and of locating the studies which would be most appropriate in the solution of a particular instructional or curricular problem.

Use of Existing Research in Curriculum Development in the Aesthetic Education Program

The development of curriculum materials in the Aesthetic Education Program proceeds from a rationale concerning the role of aesthetics in the education of children (Madeja and Kelly).[5] That rationale, serves as what Walker (1971), calls a "platform" which "includes an idea of what is and a vision of what ought to be, and these guide the curriculum developer in determining what he should do to realize his vision."[6] But the platform does not answer the developers' questions about whether a topic is appropriate for a given age group of children or about how activities should be structured. Within the Aesthetic Education Program, evaluators and researchers have worked with developers to use existing research in child development, learning, and creativity as a basis for making informed choices. Two examples of the utilization of research in the development process are described below--one involving the choice of an appropriate topic and the other concerning the use of the literature on creativity to activities.

The Time Box: The first group of instructional units in the Aesthetic Education Program, written for kindergarten and first-grade children, deals with "Aesthetics in the Physical World." It includes sets of materials introducing students to the physical and aesthetic properties of light, motion, sound, and space and engaging them in "aesthetic encounters" with these properties. Originally, the series was to include a parallel unit on time, but both evaluation of prototype materials and a review of existing research in child development led to the conclusion that the concept itself was inappropriate for such young children. The decision, then, was to eliminate the unit from the series. The research used to inform this decision is summarized below.

Anyone concerned with what concepts are appropriate to teach young children, what concepts they are developmentally able to grasp, must attend to the work of Piaget, who calls the period prior to about age seven the "pre-operational stage."[7] At this point, a child's set of images is not coordinated. "At the ages of four and five, children still have difficulty in arranging a series of symbols...into a simple time sequence..." (Thuernau, 1973).[8] Since The Time Box unit was designed to introduce children to both physical, psychological, and aesthetic aspects of time, the conceptual base was complex. Piaget was cited to document that the objectives of the unit were beyond the grasp of five- and six-year-old children:

> Grasping time is tantamount to freeing oneself from the present, to transcending space by a mobile effort, i.e., by reversible operations. To follow time along the simple and irreversible course of events is simply to live it without taking cognizance of it. To know it, on the other hand, is to retrace it in either

> direction. Rational time is therefore reversible, whereas empirical time is irreversible and the former cannot embrace the latter unless this fundamental contrast is fully taken into account. Hence, it is easy to understand why young children have difficulty in handling temporal concepts.[9]

Another study cited in the evaluator's summary of research was by Ames.[10]

Thuernau's summary of the study was:

> Ames (1946) combined observational procedures and standard questioning to depict the development of time concepts in children from eighteen months to eight years. This thorough investigation provides the most comprehensive data available concerning the emergence of concepts of the past, present, future, age, time of day, calendar units, and the relationship between representations of duration and order. In connection with the levels of time conceptualization, the child first responds to "soon" as the time concept at eighteen months by waiting; he uses the phrase at twenty-four months; and at forty-two months he can answer a question with the concept. Children's time concepts proceed from the specific to the general or from the concrete to the abstract, with a gradual reduction in the frequency of inaccurate tenses and inappropriate temporal expressions. Ames noted that considerable individual differences appear within any level of age and intelligence in children's use and comprehension of temporal concepts. Many have an excellent picture of their temporal world and effectively employ time words from a very early age; others never seem to attain a clear understanding of time concepts and are only vaguely oriented in this sphere. These individual differences emphasize different rates of maturation that may reproduce a permanent handicap in terms of intellectual efficiency and social adjustment. In spite of these important individual differences, Ames observed systematic and consistent patterns of growth and maturation. Words indicating the present appear first, followed by presentations of the future and finally those indicating the past. Thus, "today" at twenty-four months precedes "tomorrow" at thirty months, which, in turn, precedes the "yesterday" of thirty-six months. Mastery of the time concepts necessary for comprehensive orientation does not appear all at once, but involves several levels of attainment. First the child can respond by waiting, then he uses the word, and then he can correctly answer questions dealing with the concept. Children report the time at which an event occurred in terms of a specific activity before they give an actual clock time. Similarly, individual time words are used spontaneously in relation to a specific context before they are generalized. Words which imply duration and not just order usually appear no sooner than thirty-six months. As regards general conventional divisions of time, the child discriminates morning from afternoon at four years, but does not communicate about clock time until about age seven. This seven-year-old has reached an important level from the standpoint of readiness to employ other conventional time concepts such

> as the knowledge of months and seasons, and by eight he can conceptualize the year and the day of the month. The days of the week are named correctly by five and the months unfold several years later. This study indicated that children can correctly identify bedtime at five, while suppertime, time of awakening, schooltime and the onset of afternoon are identified at about six years. Children can designate their age by three, the time of their next birthday by four, and how old they will be next by five. A detailed developmental schedule is available in the original reference.[11]

The survey of the literature concerning child development and its relationship to understanding concepts of temporality led Thuernau to conclude:

> As a result of these findings it seems premature to attempt learning in relation to time before age seven. Between seven and eight, children begin to respond readily to temporal teaching and begin the long, slow process of developing their capacity for the accurate and precise appreciation, perception, and comprehension of time. Younger children overestimate time to a greater extent then older children and adults.[12]

Existing research made it clear that it was inappropriate to introduce time as a physical and aesthetic concept to the children who were receiving introductions to space, light, and motion. While there may have been a logic to the inclusion of time in the first Aesthetic Education Program series, it was psychologically and pedagogically unsound. Consequently, the Aesthetic Education Program staff made the decision to eliminate this instructional unit from the series.

The example of the elimination of The Time Box from the curriculum is significant because the basis of the decision underlines the role of existing research in the development process. It is perhaps more important to look at the case in which research said, in effect, to developers that their first "hunch" about what should be in a series was wrong than at the instances in which the developers ideas were supported by research. It is, after all, difficult to let go of an idea, and, in fact, the original plan for the series made sense in relation to the "platform." The case of The Time Box, however, makes it clear that not only must the Aesthetic Education Program curriculum fit the platform, but it must be both teachable and learnable. Using the existing literature on child development and learning enables curriculum developers to make informed decisions.

Structuring Activities: The Aesthetic Education Program's commitment to presenting content and materials appropriate to children and to the area of aesthetics has led to the use of existing research as a basis for making curriculum decisions regarding specific activities as well as general approaches to the content. One of the objectives of the Aesthetic Education Program curriculum, an important plank in the platform, was not only for students to understand cognitively the creative process, but through the study of the arts to develop their own creative abilities. As a result, Getzels' research[13] on creative thinking and problem solving was used in determing the structure of activities within sets of materials.

Getzels draws a distinction between presented (the problem is given) and discovered (the problem exists but must be identified by the learner) problems. According to him, "much...creative thought is really...discovering problems."[14] That is, creativity in learners can be enhanced not only by presenting them with problems and asking for "creative" solutions to them, but by developing materials which push children toward using their creativity in discovering a problem itself.

Creative problem identification is one thread which runs through the Aesthetic Education Program curriculum materials. For example, in Part and Whole students are asked to look carefully at the cover of their booklet and try to determine what the picture shows. The picture itself is structured to illustrate the concept "A whole is made up of parts," but the first discussion encourages children to discover that as a problem. Similarly, in The Filmmaker, students are presented, both in photographs and words, with different sequences of the same events so they can discover the problem which film editing addresses.

Another concept borrowed from the literature on creativity which has been used in the Aesthetic Education Program curriculum is that of "divergent thinking." Divergent thinking is contrasted to "convergent thinking" and

> ...pertains to new information that is minimally determined by the known information...in the one (convergent), the requirement is for a single already ascertained right response. In the other (divergent) a variety of responses involving "fluency," "flexibility," "originality," and "elaboration" may be called for.[15]

Concern for developing and rewarding children's ability to think divergently runs throughout the Aesthetic Education Program curriculum. In Creating Word Pictures students are encouraged to create new and original combinations of adjectives and nouns--e.g., "rainbow milk." The game which is the core activity in Constructing Dramatic Plot presents students with cards, such as "characters," which give them minimal information. They are then asked to construct a plot. A final example offered of the encouragement of divergent thinking within the curriculum comes from The Visual Artist. In that set of materials, students choose cards labelled "Things I See," "Things I Know," and "Things I Imagine," each with a few cues on them. They are to create "a work of art" based on these cues. The variety of ideas executed by children for all these activities has indicated that it is possible to encourage creative and divergent thought.

Finally, the classification of types of problems developed by W. L. Libby[16] and cited in Getzels'[17] served as the underlying structure for the activities in Arranging Sounds with Magnetic Tapes. Libby's taxonomy is:

1. The problem is given (is known) and there is a standard method for solving it, known to the problem-solver (student, experimental subject) and to others (teacher, experimenter) and guaranteeing a solution in a finite number of steps.

2. The problem is given (is known) but no standard method for solving it is known to the problem-solver, although known to the others.

3. The problem is given (is known) but no standard method for solving it is known to the problem-solver or to the others.

4. The problem itself exists but remains to be identified or discovered (become known) by the problem-solver, although known to the others.

5. The problem itself exists but remains to be identified or discovered (become known) by the problem-solver and by the others.

6. The problem itself exists but remains to be identified or discovered (as in 4 and 5) and there is a standard for solving it, once the problem is discovered, known to the problem-solver and to the others (as in 1).

7. The problem itself exists but remains to be identified or discovered, and no standard method for solving it is known to the problem-solver, although known to the others (as in 2).

8. The problem itself exists but remains to be identified or discovered, and no standard method for solving it is known to the problem-solver or to the others (as in 3).[18]

In Arranging Sounds, children work out problems on levels two through seven in this schema. For example, the first activities concentrate on problem solving on the order of level two--children learn to use the sound equipment. They move through activities which present problems of increasing complexity, from "Composing a Ten Sound Arrangement," to "Repeating Four Sounds to Make a Theme," to creating variations on the theme. The taxonomy of creative problem solving, then, was used by the developer to inform the structure of the activities.

The Aesthetic Education Program has used existing research in creativity to aid developers in making curriculum decisions. Specifically the ideas of discovered problems, divergent thinking, and levels of creative problem solving were the basis of activities and the structure of curriculum materials.

Development of Evaluation Instruments

Standardized tests have seldom been used in Aesthetic Education Program evaluations because these instruments do not usually lend themselves to direct measurement of a unit's goals. Nevertheless, the possibility of using standardized tests, which are advantageous because of their known reliability, validity, and norm tables, is investigated when the basic evaluation plan is laid out for each unit. The Children's Embedded Figures Test[19] and the Torrance Tests of Creative Thinking[20] are two published and standardized instruments that have been employed in Aesthetic Education Program evaluations.

As a result of the lack of relevant tests, a major research activity of the Aesthetic Education Program evaluators has been the development of instrumentation which is content-valid for the task at hand and sensitive enough to pinpoint the effects of only ten to fifteen hours of instruction. The fast pace of development does not allow for multiple consecutive test revisions; so evaluators have had to cultivate a feel for what will work in order to fine tune their instrumentation. Close contact with the content area and vigorous standardization of administrative procedures have helped evaluators secure maximum payoff from their efforts with instrumentation. Almost all instruments benefit from one trial and revision during the hothouse, or first stage of evaluation, and reliability estimates in the .80's and .90's have been attained within this framework. Most instruments developed by Program evaluators are uniquely suited to the measurement of aesthetic education outcomes and would be unobtainable from any other source.

Instrumentation dealing with measurement in the cognitive, affective, and psychomotor domains has been developed within the Aesthetic Education Program. Cognitive learnings have been measured by critical language tests which investigate a student's mastery of vocabulary in an art area. An understanding of "images," for example, is critical to students working with a media unit. To insure content validity, important terms are selected from a comparatively large group of possibilities. A panel of staff members knowledgeable in the content area uses Q-sort methodology to select the most important terms. A pool of distractors is then generated empirically by asking students who have had the unit to write a constructed response definition for each term.

Structured interviews have occasionally been used as tools of cognitive measurement, particularly when working with students who are too young for traditional paper-and-pencil testing procedures. In one case the Guttman or cumulative scale, an instrument usually associated with attitude measurement, was taken as the point of departure for developing a cognitive interview. This interview, reported in Carr, Edwards, Hall, and LeBlanc (1973)[21] was designed for the evaluation of a unit dealing with the aesthetics of space. It began with a conceptual segment in which students were asked "What is space?" Their responses were categorized into a hierarchy of seven levels of sophistication. Students who could give an acceptable definition of space and follow it up with two correct examples were given maximum credit. It was assumed that students who could do this would have been able to carry out the simpler tasks also, for which less credit was allowed. The interviewer used a fixed schedule of prompts and follow-up questions so that students who were unsuccessful at first were presented with progressively easier questions. As questions became easier, less credit was given for answering them correctly, and this feature maintained the cumulative nature of the interview scale.

The interview was pilot-tested before actual use in order to verify the scaling of the task hierarchy.

The next interview segment focused upon student perception of distance (or created space) in exemplary art works. Reproductions of the paintings "LeQuartier St. Romain" (1925) by Utrillo and "Number 10" (1950) by Rothko served as distance perception stimuli. To assure that the distance item would not be passed or failed only because of knowledge of the word "distance," the question was posed in a way that incorporated an operational definition of distance. The Rothko work is totally abstract, while the Utrillo is a rather conventional rendering of a tree-lined city street running from foreground to background; hence the Utrillo was keyed as correct response.

Other interview items used reproductions of the paintings "The Numbering at Bethlehem" (1566) by Brueghel, "The Gleaners" (1857) by Millet, and "Circus" (no date) by Pechstein to probe student perception of distance, and, more importantly, to measure student insight into the artistic devices used to portray it. The devices of relative detail, relative size, and overlap, rather than the three art works _per se_, were the issue of central importance in this cluster of items. One item was devoted to each device, and the strategy of questioning was to pinpoint the student's understanding of each device.

In responding to these interview items, the student was able to demonstrate an understanding of distance portrayal devices or cues at three different levels of sophistication. The first question in an item asked the student how the artist showed distance in a particular picture. If the student made an appropriate response at this point, stating the role of relative detail, relative size, or overlap in the portrayal of distance and showing an example of it in the stimulus picture, he or she was awarded three points. This was coded as a Level A response, at the most sophisticated responding level, because the student was able to state the principle from the beginning and identify an example of it in the stimulus.

If the student was unsuccessful at Level A, the interviewer then proceeded to Level B, asking him or her to point out something in the picture that looked close and something that looked farther away. The student was given one point for doing this correctly, and then he or she was asked how he could tell that one thing was closer than the other, getting another point for a correct response to this.

If the student was unable to identify things that appeared to be closer or farther away in the picture, the interviewer proceeded to Level C and pointed out correct examples to the student. The student, for one point, was then asked how he or she could tell that one thing looked closer than the other.

The interviewer repeated the A-B-C sequence as described so that each student dealt specifically with detail, size, and overlap as he or she responded to the three items. The order in which these principles were discussed was contingent upon student response, as the student was first presented the option of selecting any distance cue he or she wished from the stimulus picture. The order of presentation of stimulus pictures was randomly varied, and the effect of this variation was compounded by the fact that all three distance cues were present to a greater or lesser extent within each stimulus picture.

The final topic of this interview was a projective question intended to probe student reactions toward three different uses of the same space. Stimulus material was four 8" x 10" photographs of a wide window sill with the space used differently in each. The interviewer began by saying, "This is a picture of a part of an office. Here's a window and a shelf to put things on." At this point the student was shown a photo of the empty space, and the interviewer continued, "Three people have worked in this office, and these pictures show how the place in front of the window looked when each person was there." The student was then shown three photos in random order, and the photos were placed along side each other and left in view to facilitate comparison. One photo showed the space almost entirely filled with large boxes, with only a small aperture remaining for light to enter through the window. Another photo showed the venetian blinds askew, and the sill below was cluttered with a hat, galoshes, manila envelope, rope with noose, tube of toothpaste, spoon, coffee mug, bookend, rag, ash tray, jar of instant coffee, portable radio, and stuffed dog. Another picture showed three books, a potted plant, a telephone, note pad, and pencil arranged in an orderly manner.

After examining each photo, the student was asked which person had made the best use of the space. The interviewer recorded the student's response and then presented the other two pictures in turn, asking, "What's wrong with the way this person had it?" The critical response of the student toward the two pictures not chosen carried the most information in this case. As with the entire interview, the student responses were tape recorded for subsequent analysis. Only the critical responses toward the two rejected pictures were scored.

Students were allowed no credit for making a general catalog of the objects in a space when telling their reason for rejecting that use of space. They were allowed one point for any response that focused upon the space and its use, rather than an irrelevant response about the objects within it. Such responses might say that there were too many or too few things in the space, inappropriate things in the space, or things which made it impossible for the space to fulfill its normal function. Two points were given for responses in a more directly space-aesthetic vein, and these were identified by the student's use of an adjective, for example, the word "messy." Two points were the maximum allowed for each critical response. The entire individual interview was scored on a record sheet at the time of administration, with two evaluators scoring each interview independently. Each interview was recorded, and the same two evaluators reviewed the tapes and discussed individual scores to insure that scoring policy was consistent across the different test sites.

Aesthetic education deals with the areas of perception and creativity, and evaluators must often chart the effectiveness of a unit in these areas. Structured and standardized tasks have provided the most generous payoff in this area of measurement, and two related examples, reported in Carr, Edwards, Hall, Kahan, Lane, and LeBlanc (1974)[22] were named Pattern Perception Fluency Task and Creative Pattern Drawing Task. The former measure sought to measure the extent to which a class of students could perceive the naturally occurring patterns which surrounded them in their own classroom. Students were given a standard time limit to point out patterns in their classroom to an evaluator who silently scored each response. Other evaluators in the same classroom assigned their own scores (1 or 0) to each response, a necessary safeguard for this highly subjective task. The Creative Pattern Drawing Task asked students to draw a city street from their imagination, and they were told their drawings would be scored according to the amount of pattern they contained. This task was somewhat more difficult than the previous one because it required students to create patterns in their imagination and then reproduce these patterns on paper.

A more sophisticated effort in this direction was described in LeBlanc, Buseman, and Killoren (1974).[23] The Sound-Image-Narration Communication Task (SINC Task) was developed to evaluate a media package. Using a printed blank storyboard, students were given a standard period of time to communicate a story using images, sounds, and narration. The actual directions given to the students are reproduced below.

> I want you to take eight minutes to tell me a story, any story. You can use images, sounds, and narration to tell your story. When I say 'image' I mean 'picture,' and when I say narration I mean 'words.'
>
> Tell me your story by writing it down on this printed sheet I gave you. Put your images in this column, your sounds in this column, and your narration in this column. Don't use any more images, sounds, and narration than you have room for on this sheet.
>
> You don't have to fill up the sheet, either. Use only as many images, sounds, and bits of narration as you want for your story. It's OK to use no images, or no sound, or no narration if you want. Just use something. Please don't talk to your neighbors. Begin.

The sophistication of the SINC Task resided in its scoring system. Student papers were identified only by name and a code letter, so that the panel of scorers would not know if a given paper were pretest or posttest, or from treatment or control group. Members of the scoring panel were given the following written instructions:

> Please examine each storyboard and assign it a score in the five dimensions of sounds (S), images (I), narration (N), ordering (O), and quality (Q). Each dimension is explained below:
>
> Sounds
> The sounds score is the number of sounds used on the storyboard, and will range from 0 to 4. To score, a student must write the sound itself, such as "meow" rather than a description of the sound, such as "the sound of a cat." Also, a sound must appear in the sound column to be counted. The top score is 4, no matter how many sounds are used.

> **Images**
> As with sounds, the images score is the number of images used, and will range from 0 to 4. To count, the image must appear in the image column.
>
> **Narration**
> Narriation is scored in the same way as sounds and images, ranging from 0 to 4. Do not be concerned about the quality of sounds, images, or narration for the S I N scores described above.
>
> **Order**
> The order score, which will range from 0 to 4, reflects the skill with which the student arranged his sounds, images, and narration to make a story. Does the story make sense? Does it move by logical steps? How easily can the reader understand it? This score depends upon your own judgment, and please make it quickly--don't agonize. Use the following scale to assign your order (O) and quality (Q) scores:
>
> 4 = excellent, well above average
> 3 = good, above average
> 2 = fair, below average
> 1 = poor, well below average
> 0 = zero, nothing
>
> **Quality**
> The quality score, which will range from 0 to 4, reflects the overall quality of the story. Did the student use all three media (sounds, images, narration) in his story? How well did he coordinate the media? Was the story interesting? Did the story have conflict, crisis, resolution? Again, this score depends upon your judgment, and your first judgment will be considered your best. Don't spend time pondering. Please use the same scale listed for order above.
>
> **Marking the Score**
> Assign your scores before turning the storyboard over, so that you won't be influenced by the other judges' opinions. When all scores are decided, please mark them on the back of the storyboard under the appropriate letter S, I, N, O, and Q. Use a different color of ink from that used by the other judges.

Because of the highly structured nature of the scoring procedure, results of the SINC Task were amenable to analysis by profile scores as well as by overall score. The first three subscores measured fluency within the context of sounds, images, and narration. These subscores were essentially frequency counts, and in an incidental way they also measured technical facility with the storyboard since sounds, for example, were not counted unless they appeared in the sounds column. The fluency measured was spontaneous fluency, since students were not required by the instructions to fill each column. The order and quality scores are self explanatory. Taken as a whole, this task measured important aspects of creativity. Experience has shown that the administration and scoring of perception and creativity tasks must be tightly standardized to permit a meaningful analysis of results.

Student response in the affective domain has been probed with structured interviews, semantic differentials, and two generalizable instruments: the Unit-Subject Preference Scale and the Activity Preference Scale. The Unit-Subject Preference Scale calls on the student to state his or her preference in paired comparisons of the unit with every other subject studied by the class. The Activity Preference Scale asks students to rate the more important activities within the unit according to preference. Experimentation is now under way to develop a semantic differential that will be generalizable across units. At present, semantic differentials are being used to measure students' affective response toward different artists and art forms.

Because of the difficulty involved in administration and scoring, testing is done infrequently in the psychomotor domain. This is the most valid way to evaluate dance units, however, and psychomotor skills have been examined in several recent evaluations through the use of structured performance tasks.

One task calls on students to perform a short dance of their own design, which is rated on criteria such as use of different levels of space, and sterotyped versus original style of movement. Performances are rated in pretest-posttest comparisons by an outside expert in movement.

A more narrowly focused psychomotor test was the Rhythmic Movement Assessment Activities. This was a three-part performance test developed to assess student ability to initiate, internalize, maintain, and move the body to a steady beat. In the first assessment activity, the class was told to be completely silent. Once it was silent, the examiner gave a signal to start, and the class was asked to begin a steady beat and keep it going for one minute. The performance criterion was to agree upon one beat and maintain it at the same tempo.

The second activity used a metronome to establish a tempo of MM=52. Students were asked to listen to the beat, then silently begin to move their bodies to the beat. After fifteen seconds the metronome was turned off, and the criterion was to maintain the beat through silent body movement for forty-five seconds. This required students to mentally retain the tempo.

In the third and final assessment activity, the class was given fifteen seconds to internalize a beat of MM=72. They were then required to maintain it silently and without moving for fifteen seconds. After this, they were given a signal and asked to clap the beat for thirty seconds. The criterion was to clap the correct beat after silence and to maintain the same tempo for thirty seconds.

Because of time constraints, it was necessary to administer and score the Rhythmic Movement Assessment Activities as a group measure, and scoring was, at best, a taxing assignment. With group administration, the only scoring options available were simultaneous (live) scoring or subsequent analysis of a video tape. Simultaneous scoring was chosen because of the flexibility and sensitivity this method offered over video tape. This meant that a group of twenty to thirty students would have to be scored during a response period that was never longer than one minute. After experimenting with these activities at the hothouse level, it was decided that the only practical scoring strategy was to count and record the number of incorrect responders or nonresponders in each group. This was necessarily imprecise because of the possibility that a given student might be observed during the only five seconds that he or she was responding correctly (or incorrectly). To partially offset this problem, the activities were scored independently by three evaluators who moved around the classroom. The follow-the-leader effect was another problem of this group-administered rhythm task, and there is no doubt that it would have been a much more sensitive measure if used individually. Despite the problems of group administration, the Rhythmic Movement Assessment Activities were sensitive enough to reveal a statistically significant difference between treated and untreated students.

Aesthetic Education Program evaluators have developed and continued to refine a wide range of evaluative instruments, including checklists, questionnaires, and structured interviews for teachers who have used the Program's materials. Instruments such as those described in this section have been the most challenging to develop, the most difficult to score, and perhaps the most information-laden of all. These original instruments are uniquely suited to measuring the outcomes of aesthetic education.

Conclusion

While there has been much use of existing research within the Aesthetic Education Program and a commitment to research on the program itself, two questions are raised by the Program to which research has not yet supplied answers. These require the type of "basic research" beyond the capabilities of the Aesthetic Education Program. The results of such research, however, would be useful both within the Program and for potential users of the materials. In this conclusion, we raise two issues not addressed by existing research in the area of aesthetic education.

It is axiomatic that the content of a curriculum ought to be appropriate for its audience, but, in the absence of a theory of aesthetic development, how do curriculum writers determine "appropriate content" in aesthetic education?

Social studies curriculum efforts can be guided by the work of Kohlberg; mathematics efforts by the work of Piaget. But what research exists which can inform--at that lead--the efforts in aesthetic education? Obviously, Piagetian theory has demonstrated its utility within the Aesthetic Education Program, having influenced at least one major decision. But determination of appropriate content has very often been based upon conventional wisdom, the logic of the field, and the clinical experiences of the writers. Our claim is not that these sources are misleading or that the resultant materials are not appropriate. Rather, we are calling for an effort to distinguish stages of aesthetic education development so that future efforts can more closely match valid information concerning students' abilities at various ages.

The Aesthetic Education Program has attempted to fill another void in the field of research. The curriculum development effort is concerned with the achievement of both cognitive and affective objectives, and the cognitive objectives themselves are complex. There is an absence of valid and reliable general measures of student acquisition of such content. The instruments we have developed tend to be specific to a given set of materials, or series, in part, because the capacity of the Program does not allow validation of any but "small" instruments. The lack of indicators or instruments in the field of aesthetic education in general lessen our and consumers' ability to assess student achievement. It also presents limitations in prediction, which affect curriculum adoption. Again, a large scale basic research thrust in instrument development is beyond the capacity of the Aesthetic Education Program, but it is a void that needs to be filled by scholars.

The Aesthetic Education Program has been committed to a research thrust from the beginning. Research has been carried out for and used by both those who develop curricula and by those who use it. However, the need for more basic research in aesthetic development and learning remains.

FOOTNOTES

1. Thomas J. Johnson, Review and Index to Research in Creativity Relevant to Aesthetic Education, 1900-1968 (St. Ann, Missouri: CEMREL, Inc., 1970) pp. 1-2.

2. Ibid., p. 17.

3. Thomas J. Johnson, Review and Index in Research in Educational Media, 1900-1968, Vol. I (St. Ann, Missouri: CEMREL, Inc., 1970), p. 20.

4. Ibid., p. 21.

5. Stanley S. Madeja and Harry T. Kelly, "The Process of Curriculum Development for Aesthetic Education." Toward an Aesthetic Education (St. Ann, Missouri: CEMREL, Inc.; and Washington, D.C.: the Music Educators National Conference).

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14. Ibid., p. 265.

15. Ibid., p. 248.

16. W. L. Libby, "Tools for Discovery of Problems and Their Solutions (Heuristics)," Center for Programs in Government Administration, University of Chicago (mimeographed).

17. Getzels, "Creative Thinking," Ibid., p. 241.

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22. Diane Carr, Roger Edwards, Betty Hall, Rhyllis Kahan, Ann Lane, and Albert LeBlanc, *Rhythm/Meter Pilot Test Report* (St. Louis: CEMREL, Inc., 1974).

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PSYCHOLOGICAL ASPECTS OF AESTHETIC EDUCATION:
Some Initial Observations

by

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INTRODUCTION

This paper presents several highlights from three investigations carried out in the context of the Aesthetic Education Program. All were related to the evaluation of the program, but none was constrained by a narrow definition of evaluation.[1] The first of these was a "qualitative description, analysis and evaluation" of a state wide extended pilot test of the new curriculum materials (Smith and Schumacher, 1972). The second was a study of the "8 Day Week," a workshop for school administrators (Smith, 1974). In addition, and as an outgrowth of those field studies, we moved toward an extension of Piaget's "clinical method" as a means of studying the child's aesthetic experience (Smith, 1974). From these larger and more general studies come the particular ideas and data regarding this point of view about aesthetic education.[2]

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[1] The ferment and excitement in the area of curriculum evaluation is represented by the AERA Monograph series or Curriculum Evaluation and books such as Hamilton et. al. (in press).

[2] As is evident from the other articles in this monograph, I have benefited from the comments of my CEMREL colleagues.

A FIELD STUDY OF THE EXTENDED PILOT TRIALS OF THE AEP CURRICULUM MATERIALS

The AEP extended pilot trials had both an explicit and implicit framework represented in the formal documents regarding the program. During the first year, the "evaluation" effort consisted primarily in obtaining a relatively detailed description of the workings of this project. "Telling the story" of innovative projects has been strongly recommended by Maslow (1965). He comments, for instance:

> In most such cases (experimental programs and schools) we wind up with a retrospective story of the program, the faith, the confident expectations, but with inadequate accounts of just what was done, how, and when and of just what happened and didn't happen as a result. . . .The real question is how we can make the best use of the 'natural experiments' that result when some courageous enthusiast with faith in his ideas wants to 'try something out' and is willing to gamble. . . .If only they were good reporters too. . . and regarded the 'write-up' as a part of the commitment! That is just about the way the ethnologist works: he doesn't design, control, manipulate, or change anything. Ultimately he is simply a non-interfering observer and a good reporter. [Maslow, 1965, p. 13]

Reflections upon rhe descriptive narrative yielded concepts, hypotheses, problems to be studied and "suggestions" for program personnel. It is important to accent the tentative quality of the hypotheses, models, and suggestions or recommendations yielded by this kind of approach in this phase of the evaluation effort.

Procedures

At a precedural level, the methodology of participant observation is very simple. The observer tries to be around during most of the major events, to blend roles of detachment and involvement through different settings, activities and interactions. Usually he tries to take copious notes of these events. The intensive involvement may cover the entire period of the project, as in the

8 Day Week, or it may involve several months of man days as in the Extended Pilot Trials. In the larger projects, the field notes run into thousands of pages, "several filing drawers full." From these experiences and records of the experience, reports are prepared. They may eventually become monographs and books. Essentially, the content involves a descriptive narrative of particular events and interpretations and generalizations of a more abstract and theoretical sort.[3]

A Conception of Aesthetic Education

As is evident from the multitude of concepts and points of view presented in the papers in this volume, each of us in AEP sees the elephant from different perspectives. In initially wrestling with the notions of aesthetic education, aesthetic development and aesthetic experience, the model in Figures 1 and 2 arose as a useful means of capturing the domain of the program.

Insert Figures 1 and 2 about here

As we observed teachers and children using the first half dozen curriculum packages in the X Pilot Trials most of what was occurring seemed to be categorizable within those figures. In a sense we had a Tylerian specification table (Tyler, 1950). In broad categories the content is the various art forms--music, dance, drama, literature, film, graphic arts. The curriculum packages Constructing Dramatic Plot, Creating Characterization, Sound and Movement, Meter, Creating Word Pictures fit neatly in one or more columns. Our hunch was that most of the rest of the packages then under construction would also fit.

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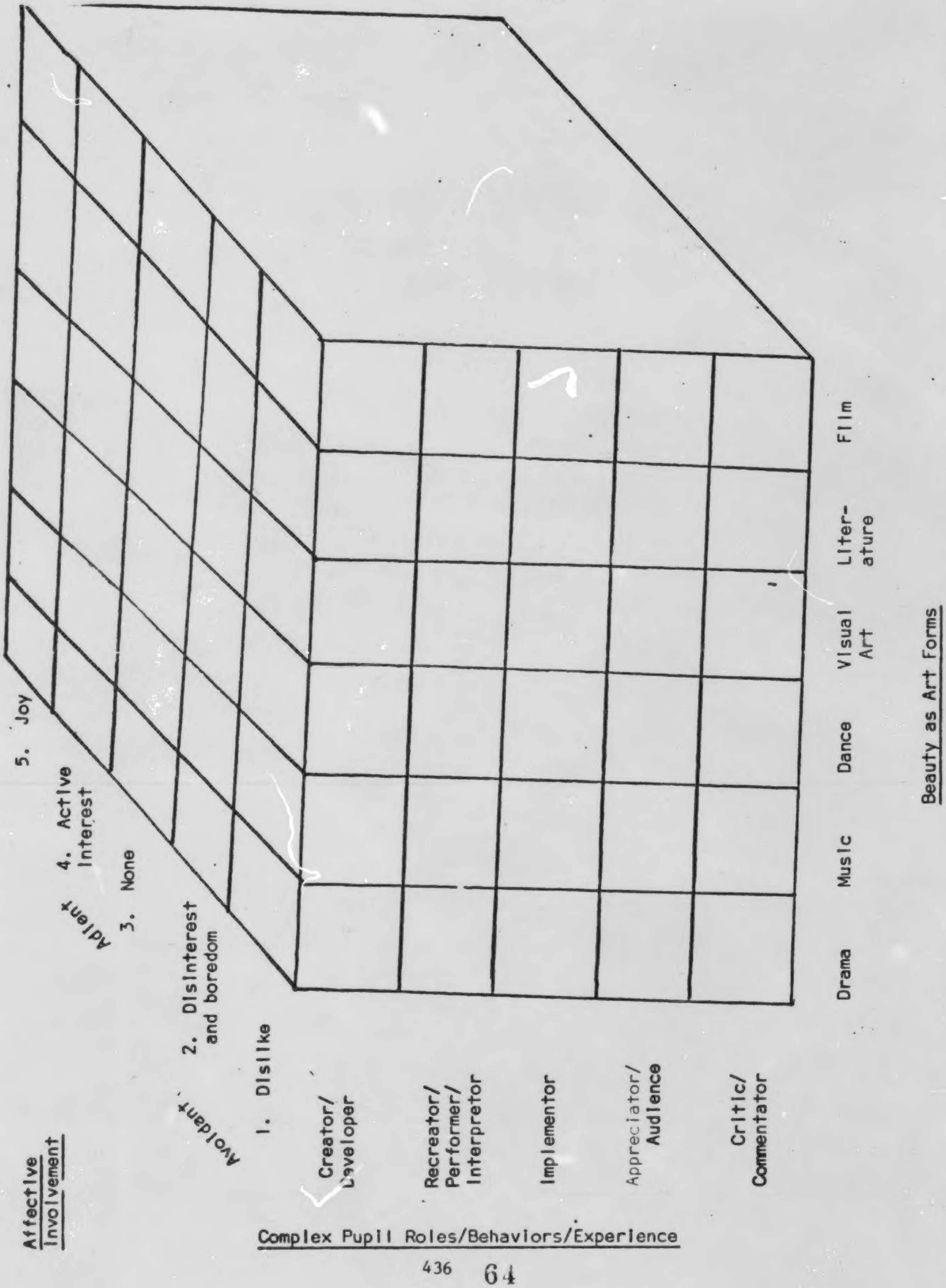
[3] For intensive usage of participant observation on a variety of problems in education, see Smith and Geoffrey 1968, Smith and Keith 1971, Smith and Pohland 1974, and Smith (in process).


Affective Involvement
Avoidant
1. Dislike
2. Disinterest and boredom
Adient
3. None
4. Active Interest
5. Joy
Complex Pupil Roles/Behaviors/Experience
Creator/Developer
Recreator/Performer/Interpretor
Implementor
Appreciator/Audience
Critic/Commentator
Beauty as Art Forms
Drama
Music
Dance
Visual Art
Liter-ature
Film

Pupil Roles/ Behaviors/ Experiences	Art Forms					
	Theater	Music	Dance	Visual	Literature	Films
Creator	Playwright	Composer	Choreographer	Artist	Writer	Playwright
Recreator/ Performer	Actor	Musician	Dancer	Copyist	Oral Reader	Actor
Implementor	Producer Director Stagehand Designer	Conductor Accompanist	Accompanist	Exhibitor	Editor Librarian	Director Producer Cameraman
Appreciator	Playgoer	Concertgoer	Ballet Enthusiast	Art Patron	Bookworm	Movie Buff
Critic	Drama Critic	Music Critic	Dance Critic	Art Critic	Book Reviewer	Film Critic

Figure 2. Further specification of roles and art forms.

We asked ourselves, what are the teachers and children supposed to do with the materials (from our reading of teachers manuals, our observations of the teacher workshops, and our conversations with the developers), and what do they actually do with the materials (from our in situ classroom observations and conversations with teachers and children)?[4] For instance, the major thrust of Constructing Dramatic Plot, as indicated in the manual

> The student will increase his capacity to experience aesthetic phenomena through cognitive visual, aural-verbal, and kinetic involvement with the dramatic plot games (p. 7).

The diagnostic activities, pre and post, involve the students' comprehension and ability in handling elements in dramatic structure in the composition of the plots. In the list of "encouraged activities" in the manual and in the list of "try these for fun" suggestions to the pupils "act our your dramatic story" is one of the suggestions.

In one of the first classes we observed in the extended pilot trials, the children proposed to the teachers "Can we do it?", that is put on or enact each drama. She accepted the initiative and we were soon privy to rehearsals (all over the building), construction of theatre in the round in the back of the class, technical effects (lighting and sound for lightning and thunder) and multiple modes of presentation--mimes, narration plus acting, and formal plays with spoken parts.

While this vignette is short, it was long struggles with episodes such as this that led, eventually, to the five fold scheme of classifying complex pupil behaviors/roles/experiences. That is, the children were sometimes creating, performing, implementing, appreciating, and critiquing. The occupational titles inserted in Figure 2 indicate clearly enough the meaning of the kinds of abilities involved. Each category of pupil activities represents initially quite different perceivable things that the children were doing in the various classrooms we visited. In this very important sense, the model is grounded in the data (Glaser and Strauss, 1967).

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[4] For a similar and more extended development of this contrast in the context of educational innovation, see our report on the Kensington School (Smith and Keith 1971). Charters and Jones (1973) present a comprehensive and formal analysis of the logic of this as a problem in educational research.

While the outcomes of this model were several fold, two might be mentioned: evaluation and teacher training. In regard to evaluation, one of the most critical problems is measuring devices. Once one has a specification table, that battle is half won. This and other thinking has led us toward three main instrumentations: informal Piagetian interviews, video tape records, and product analyses. Tasks for the interviews and video performances have been dichotomized into program related tasks and transfer tasks. Such approaches seem to combine the best of the multi-method-multi-trait approach to construct validity (Campbell and Fiske 1959, Cronbach and Meehl 1956). They seem flexible enough and subtle enough to do justice to the nuances of the subject matter.

In regard to a second implication of the model, talking with teachers, they grasp the nature and intent of aesthetic education when it's presented as the improvement of these five kinds of complex abilities or dispositions across the half dozen art forms and the transfer of these skills to aspects of everyday life. Even more significantly, when they are asked to fill in the table with relevant personal experiences--piano lessons as a child, singing in the church choir, stage hand or spear carrier in the junior class play, home movie buff, book reviewer, folk dancer, or whatever they come to perceive that they have considerably more personal knowledge of aesthetic education than they imagined.[5] Exploring the nature of this knowledge, its relationship to particular curriculum packages, and the even more rudimentary status of pupil abilities leads to interesting, particularistic, and practical discussions and planning on the part of classroom teachers.

Several relevant limitations of the model have been pointed out by my CEMREL colleagues: 1) as stated the model has an action, if not behavioral, point of view; many people in the arts have a more experiential or phenomenological frame of reference; 2) the role of emotions at best is overly simplified, at worst totally misconstrued; 3) further specification of elements within each cell and across rows and columns is necessary; and 4) the relationship of the various art forms to beauty in the natural environment and everyday life is minimized. The discussion in the next section illustrates the evolving and cumulative nature of this part of the research program, in its attempt to speak eventually to each of these comments.

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[5] These are tentative conclusions drawn from teaching and videotaping "A short course on aesthetic education" for a dozen and a half New Zealand teachers college students while the author was on a Fulbright Research Fellowship at Massey University. A report on this experience is currently underway.

THE PIAGETIAN INTERVIEW STUDY:
AN APPLICATION OF THE CLINICAL METHOD

The problem, the child's aesthetic experience, was conceived as important in its own right, that is as an end in itself, and also as a means to a further goal, the development of measuring instruments for the summative evaluation of the Aesthetic Education Program. The proposal for the present investigation grew out of a problem in the Extended Pilot project. We stated it this way:

> Our qualitative observational stance, with slight modification, resembles what Piaget has called "clinical method." With the availability of the package materials, an intensive interview-observational study with a few children might explore "The child's conception of aesthetics" or "children's aesthetic experiences." The goal here obviously would be trying to make sense (theoretically, operationally, and developmentally) of that will-of-the-wisp "aesthetic experience." For example, is aesthetic experience just an alternative way of talking about our five pupil "roles," "behaviors" or "experiences" with the various art forms? Or is it more subtle than this?

Undergirding the specific procedures which we implemented were several important hunches regarding our approach to solving the "measurement problem in AEP." Most of these grew out of a perspective from working with the Binet, the TAT and the Piagetian approach.

First, each interview with each child is to be treated as "an experiment." The tasks are presented as experimental materials to which the subject responds. Thus each task and each question is an operational phrasing of an hypothesis.[6] Each response, each answer is a dependent measure of the child's personality relevant to aesthetics.

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[6] As we indicate later there is some serendipity in accidental selection of tasks and phrasings of questions.

Second, the tasks are relatively complex on the continuum from factorially pure or simple to factorially complex. They are at a level relevant to the day to day life of teachers, children and curriculum in educational settings called classrooms. The parallel is to Binet's major departure from the simple psychophysical tests of the 1880's and 90's toward tasks of greater complexity and relevancy to schools and education.

Third, we are anchoring our materials to a chronological/developmental referent. The potency of an age referent for the Binet tests and the Piagetian conception is obvious. The possibilities seem equally rich in aesthetic education. The "natural" progression in development from six years to nine to twelve to fifteen to eighteen years seems mandatory if one is eventually to seek the effects of a new curriculum.[7]

Fourth, the tasks or problems were intended to be of two clusters or kinds: 1) immediately and directly related to the AEP curriculum per se and 2) similar but not identical thereby qualifying as transfer tasks. We wanted to clarify the child's reaction to some of the curriculum materials themselves which we've found to be stimulating and intriguing in their own right. In this sense we are using some of the teaching tasks as measurement tasks. The transfer issues, as we've noted elsewhere (Smith and Schumacher 1972, p. 133) run through the entire curriculum. Often the assumption in AEP seems to be for wide and general transfer--beyond what most classical experimental literature would suggest. Ultimately we hope to move directly into an experimental attack on this problem for several theoretical conceptions of aesthetic education contain implicit testable empirical hypotheses regarding transfer. For example, "the goal of AEP is the development of generalized aesthetic perception or aesthetic judgment across art forms and in the child's day to day transaction with his physical and social environment." If such perceptions and/or judgments are found to be empirically unrelated or minimally related to children in general or children who have experienced the program, this will have major implications for the conception and rationale of the program.

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[7] This sentence reads simply. The complexities are suggested in Carroll's trenchant paper "School learning over the long haul" (1965).

Procedures

The procedures of the investigation followed very nicely from the more general rationale suggested by Piaget's clinical method (Piaget 1929), our earlier work in ethnography, and Richards' (1929) fieldwork in practical criticism. Essentially we engaged in thirty to sixty minute interviews with the children. We presented them a variety of tasks. We asked them a series of questions which varied from open-ended non-directive gambits to quite specific probes. In most of the interviews two of us worked together.[8]

The sample upon which the observations were made consisted of 12 children: two boys and 10 girls. They ranged in age from 9-12 years. Racially four were black and eight were white. Most were in a summer school Theatre Arts class in a suburban school district. They were not a random sample of any known population.

Figure 3 contains a list of the array of tasks which we tried with one or more children.

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[8] Gail Hellan assisted in the interviews while she was working on an independent study project as part of her MA program at Washington University.

1. Pictures

1.1	Renoir	LeMoulin de la Galette
1.2	Stella	Brooklyn Bridge
1.3	Indiana	Love (AEP)
1.4	Segal	Girl Holding a Cat (AEP)

2. Poems

2.1	*Sandburg*	*Fog*
2.2	Merriam	How to Eat a Poem
2.3	Lindsay	The Little Turtle
2.4	Bennett	A Modern Dragon
2.5	Brooks	Robert, Who is Often a Stranger to Himself
2.6	Bacmeister	Galoshes

3. Miscellaneous Objects, Pictures and Questions

3.1	S-B(IV-1)	Aesthetic Comparison
3.2	S-B III-6 4A	Response to Pictures I
3.3	S-B IX-4	Rhymes
3.4	AEP	Emotion Book
3.5	ETS	Child Reading Interview
3.6	Gates	Oral Reading Paragraphs
3.7	Singer	Imaginative Predisposition
3.8	Natural Object:	Piece of wood
3.9	Background questions	

Figure 3. Stimulus Tasks.

The interviews were developed initially from several sources. Some questions (as well as the Renoir painting) were suggested by Clair (1939) and our attempts to elicit responses relevant to her position. The questions evolved as we felt we were not evoking ideas relevant to our hypotheses. Similarly as new hypotheses arose attempts were made to capture those ideas in the operational form of tasks and questions.

The interviews were taped on a Wollensak recorder. The children were aware that the recorder was being used. The general presentation "We are trying to find out what boys and girls find interesting in pictures and poems" was followed with an explanation that "the tape recording will help us remember." The children accepted this; such audio equipment is widely used in classes in the district. Rapport was no problem. The investigator spent several days observing the class and getting to know the children and teacher before the interviews began.[9]

The analysis procedures followed closely the approach we have used in analyzing field notes generated by our participant observational studies of classrooms, schools and curricula. As we have argued elsewhere they followed as carefully as we could understand Piaget's procedures in his clinical method especially as described in the Introduction to The Child's Conception of the World and Flavell's (1963) account in his analysis of Piagetian thought and method.

Specifically as we listened to the tape of the interview we would begin to write out a typescript of the questions and responses. After each picture, poem, or other task (and occassionally interlinearly) we would ask ourselves what does this mean in terms of the child's cognitive structure schema or view of the world? Or to use I. A. Richards' words, What does each "statement" imply about the personality of the child? What must we assume about his "expression," "the mental operations," if each statement is noted independently and interdependently with every other. As we thought and talked we took notes on the hunches and ideas. These were played back and forth within and between protocols.[10]

---

[9] As a matter of fact, the excitement in observing a class in drama and the theatre arts became of interest in its own right. It would have made a beautiful ethnography of elementary arts instruction.

As these pieces even developed they were collated and organized into a report (Smith 1974) from which this discussion is taken.

In summary, the procedures were relatively simple and informal. We gathered an initial array of tasks and questions. Our reading, experience, and theory suggested that they would have relevance to the Aesthetic Education Program, to children of elementary school age, and to the technical issues of measurement and evaluation. We found two groups of children--three who were part of the developmental cycle in the production of the Artist package and nine who were part of a summer school class in drama. With the aid of a tape recorder we kept very careful records on our conversations with the children. Methodologically the procedures seemed in keeping with where we were, that is, our purposes, problems, and theory.

---

[10] In addition they suggested new tasks and alternative strategies for subsequent interviews. Such evaluation was perceived as desirable at this point--and perhaps even for the long run but that's a separate argument and discussion.

Aesthetic Development:

General Trait or Profile[11]

A major assumption of our general model of aesthetic education is that aesthetic development is not all of a piece. The model as presented in Figures 1 and 2 contained multiple kinds of experiences/roles/behaviors across multiple art forms. As the children responded to the several tasks the possibility of a profile of aesthetic development and relevant measures increased in credibility. The image which grew was that of the grid in Figure 1 with cubes of various heights in each cell indicating an individual's level of performance in each of the cells. Several protocols are presented to clarify the point of view.

Appreciation: Poetry and Painting

Helen's responses suggest the continuing validity of the position. The contrast lies between her reaction to the pictures and the poems. In the sense of being analytical and presenting a differentiated point of view about the poetry, her reaction was the most complex we found. The protocol is quoted at length.

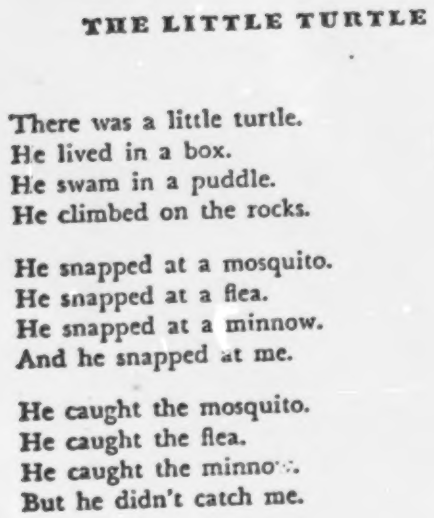
> OK, we've got some poems here, and we're trying to find out what things there are in poems that interest all sorts of people. I'd like you to read this poem "The Little Turtle," and tell me what you think of it.

Insert Figure 4 about here

> To myself?

---

[11] The profile conception has been shared with and stimulated by discussions with Stanley Madeja. In part we come from a common tradition at the University of Minnesota. We differ some in that he tends to stress more content-free general psychological characteristics--perceiving, analyzing, judging, etc.



THE LITTLE TURTLE

There was a little turtle.
He lived in a box.
He swam in a puddle.
He climbed on the rocks.

He snapped at a mosquito.
He snapped at a flea.
He snapped at a minnow.
And he snapped at me.

He caught the mosquito.
He caught the flea.
He caught the minnow.
But he didn't catch me.

Figure 4. The Little Turtle.

You can read it out loud. It's all right to read it out loud. (Reads "The Little Turtle" perfectly.)

OK, can you tell me what you think of that.

I like the rhythm.

You like the rhythm. Alright, anything else?

Well, I like it because it isn't hard to understand or anything.

How do you mean that?

Well, some poems, they say things that I don't exactly understand.

But I understand everything this poem says.

Can you tell us what it says?

It's talking about the turtle.

OK. And what does the turtle finally do?

Catches. . .He catches what he's trying to catch, but he doesn't catch him.

Can you make your eyes and ears work on this poem, and read it as if you expect to find surprises? See if you find any new details. OK, read it again and see if you notice little things maybe that you didn't notice the first time you read it.[12]

(Reads aloud again.)

Anything else in there that you think is kind of interesting or different?

OK, then instead of that, this time use your imagination, and tell me if any parts of the poem make you think of anything else. In other words, does the poem remind you of anything? No? OK. Then if you would, here's another poem called "Fog." And if you'd read that one; it's a little bit different.

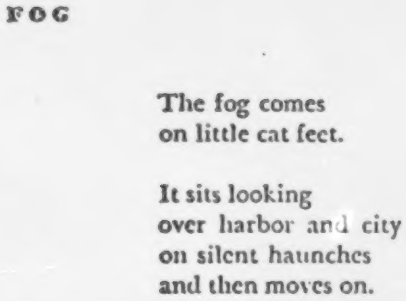
Insert Figure 5 about here

(Reads perfectly)

Alright, and what do you think of that poem?

---

[12] At this point we were trying to extend the Pearson (1925)/Hastie (1969)/ Kupferberg (1974) analysis of levels of vision, particularly what they call curious vision, in the graphic arts to images in poetry.



FOG

The fog comes
on little cat feet.

It sits looking
over harbor and city
on silent haunches
and then moves on.

Figure 5. Fog

Strange.

Strange. . .in what way?

Well, it doesn't have the same kind of rhythm. It isn't the same kind of poem.

What else makes it different? You pointed out the rhythm; is there anything else that makes it different from the other poem?

Well it doesn't rhyme.

OK. Did you find anything, any details about that poem that you particularly noticed?

Well, I liked the, at first it talks about how it comes in on little cat feet, then it keeps on talking about how it's like a cat. That's what it seems that it's talking about.

OK. And you liked that. How do you mean, "It's like a cat"?

Well, first it talks about how it comes in on little cat feet. It means, sort of like, it's sort of silent, and you don't really hear it.

What is?

The fog. Then it keeps on talking about "on silent haunches." That could be for a cat.

What kind of picture comes to your mind when you read it?

A cat made out of fog.

It makes you smile. Why does it make you smile?

Well, it doesn't exactly make me smile. It just, it's sort of like a quiet poem.

Do you read poems at home or at school?

Well, a little. My mother likes to make up poems. And she has a whole lot of poem books all over.

Does she read those to you?

Sometimes.

Would you try one more, then, and read this one for us?

What's the title of that?

"How to Eat a Poem."

Insert Figure 6 about here

"How to Eat a Poem."

(Reads, not missing any words.)

OK. What do you think of that one?

I like it.

In what way, or what about it do you like?

It seems like it'd be nice to eat.

OK. Nice to eat what?

The poem.

Have you ever eaten a poem?

I've read one.

Can you tell me what she's talking about, then.

Well, she's sort of talking about. Well, she's talking about how to eat a poem, but it sort of like means that she's talking about how you should read it.

What does that mean, or what do you mean by that?

Well, if it says, like, "It is ready and ripe now, whenever you are," it seems like it means that you can read it whenever you like.

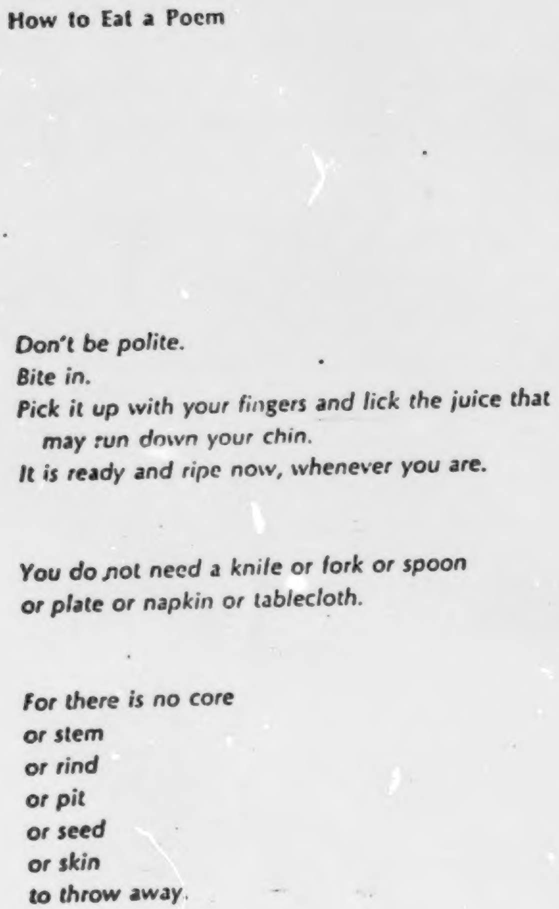
Go on.

And, "You do not need a knife, or fork, or spoon, or plate, or napkin, or a tablecloth," sort of means that you don't need anything else, you just need a book and a poem and yourself. And you don't have to do anything about the poem for this part: "for there is no core, or stem, or rind..." You can just eat it, or read it, and you don't have to do anything else about it.

Have you ever read a poem like that?

Some.

Can you remember any poems you've read that makes you feel like you read it that way?



How to Eat a Poem

Don't be polite.
Bite in.
Pick it up with your fingers and lick the juice that
may run down your chin.
It is ready and ripe now, whenever you are.

You do not need a knife or fork or spoon
or plate or napkin or tablecloth.

For there is no core
or stem
or rind
or pit
or seed
or skin
to throw away.

Figure 6. How to Eat a Poem.

> Well, some ballads make me feel that way.
>
> Why would a ballad make you feel that way?
>
> Because I don't usually like them. So after I've read it then I don't care about it. I don't think about it or anything. . . .
>
> OK. Could you, then, for me, take a look at all three of the poems, and sort of judge them for me? Tell me, . . . take a look at the poems, and tell me how well you think they're written, and which poem you liked the best, and why you liked it best, or which poem you liked the least, and why you liked it the least.
>
> I think this one is written good, because you can tell what they're talking about. (Fog) And, like I said, I feel that what the poet is talking about, what he means; he's trying to make it a quiet poem. I also liked this one best because it's so quiet.
>
> That appeals to you?
>
> I think that one is written good because . . . (How to Eat a Poem) I don't know why he put. . .I liked the rhythm in that (The Little Turtle).
>
> So there's something you like about each of them. Is there something you don't like about each of them?
>
> Well, that one is so simple; it's so childish, a little girl would like to read it. (The Little Turtle)
>
> Anything else?

In contrast Helen's responses to the pictures were impoverished. It was almost as though we were talking to a different girl. The protocols in response to the Renoir and the Stella prints are included below.

> Take a good look at the picture. What do you think of the picture? (Renoir)
>
> I like it.
>
> You like it. What about the picture makes you like it?

Well, I like the colors, and I like--the people seem so busy.

What other kinds of things?

I like the way it's painted.

How do you mean on that?

The way all the people are put together. I mean, the way the people are grouped.

OK, tell me a little bit more about that.

Well, it seems like that's what they should be doing.

The artist composed the picture, or put it together in a way when he drew it, using lines, and colors, and shapes, and so on, to make the picture as pretty as he could. Is there anything special about the way he put it together, and organized it and drew it that makes it prettier? (Pause) Anything special?

Well, I guess not.

Do you think it's a good painting? Why is it a good painting?

I like it.

OK, anything else?

Well, I think it's pretty.

What about it do you think is pretty? What strikes you about it that you think is pretty?

Well. . .I like the way the people look.

Yeah. . .You mean their faces, or what?

Well, what they're doing.

Yeah . . .

Here's a little different kind of a painting. (Stella) It's called the Brooklyn Bridge. Do you like that one?

Not as much.

Not as much. . .Why don't you like it as much as the other one?

It doesn't seem natural.

When you say it doesn't seem natural, how do you mean?

> Well, it just doesn't look real.
>
> What did the artist do that looks unreal?
>
> He made everything so exact. (Pause) It just doesn't look like that's the way it would be.
>
> Even though you don't like it as well as you like the other picture, is there anything about it that you think is especially pretty, or is there anything that makes it a nice picture?
>
> Well, I don't think there is.
>
> OK, so you don't really care for that one.

The representational aspect--what the people are doing dominated the response. The general probe on the elements produced little additional materials. The "third time through" in the questioning about the Renoir on the quality of the painting went through a preference, a reason ("it's pretty"), and back to "what they're doing." The reaction to the Stella print hinged on its lack of naturalness, that is, representational inadequacy.

Creation and Criticism Across Art Forms

In a much less elaborated manner, and focusing on the distinction between criticism and creating we present Cathy's creative story. The stimulus is one of the Binet pictures. Item 4A at Year III-6. Two Indians are paddling a canoe containing a young man and woman on a wild river. The instructions changed after earlier trials so that the directions finally came to be more like those given with TAT pictures.[13]

The protocol went this way.

---

[13] Actually, our intention had been to try several of the TAT pictures. Time didn't permit this.

> I've got another kind of a picture. Look at that carefully. I want you to make up a story about that picture. Think about what went on before, what's happening now, and how it ended. And try to make up the most interesting story you can.
>
> (Pause)
>
> First the mother and the father, they had to leave the kids and they had to go in the boat because they didn't have enough money for the train. And they're flowing on the river that goes down the waterfall. And they get killed, because the water is coming down too hard. And, see, they're scared now. And they look like they're in trouble.
>
> Anything else about your story?
>
> No. I'm sorry it wasn't very interesting.

The response is relatively brief, barren of specificity and detail and lacking in sequential flow of the narrative. In contrast her critical reactions were much stronger.[14] A brief excerpt from her comments about the Renoir suggest a very sophisticated response.

> What's the artist done as he drew the picture to make it more interesting, or make it so that you like it? How's he put it together?
>
> He put a lot in the foreground, and in the background he made it look like more people were back there.
>
> How'd he do that?
>
> He made the people in the back small. And he made them a little bit higher in the picture. And the people in the foreground, they're a lot bigger. He put something over the colors.
>
> What do you mean?
>
> He made them look like they're uh, smeared.
>
> What else did he do with the picture that made it a better picture?
>
> I don't know.

---

[14] Once again, careful support of these interpretations requires set tasks, groups of children, careful scoring of protocols according to standard content analysis schemes and norms for comparison. That's where we're headed rather than where we are.

Implications

Our stimulus materials were mostly from the graphic arts (paintings) and from poetry, one aspect of literature. We did not have film clips of dance or drama, nor did we have recordings of music. Within even these limits we found children who seemed to give quite varied performances. Helen's is perhaps the most vivid illustration of exceedingly complex reactions to the poetry and limited analyses of the paintings. The other children presented various combinations as well. Most of the roles/behaviors/experiences we focused upon were in the appreciator and critic rows of the model. We did sample the performance role of oral reading from both a simple technical focus (Charles' severe problems) and from an expressive focus as in Cathy's protocols.

One of the most intriquing curriculum research questions lies in the impact of the AEP program on this conception of aesthetic development. Does the program foster a broad and integrated point of view regarding aesthetic development. That is, do the profiles level off as children receive instruction in the multiple art forms and the multiple experiences possible with each art form? Or does the exposure to such varied stimuli set the occasion for more individualized and differentiated development which would be reflected in much increased intra individual variability. That is, do the peaks and valleys in the individual profiles become more extreme? Or, is there a simple "main effects" of the curriculum, a general increase in the level of the profile but little change in their structure? Moving experimentally toward answering such questions seems a worthy next step.

In the British literature of a decade or two ago, Eysenck (1941) and others have pursued factor analytic studies, often with simplified figures and designs, of a general taste factor. A synthesis of these alternative positions and the consequences of the AEP is highly important and desirable.

In addition the relationship of aesthetic development to the development of general intelligence is also critical. Many years ago Florence Goodenough (1926) in exploring the children's drawings argued that children "draw what they know" rather than what they see. More recently Harris (1963) reaffirmed that proposition. Insofar as Broudy's (1972) definition of aesthetic education as enlightened cherishing is accepted, the "enlightened" half will have correlates with general intelligence. In addition, a number of Binet items--memory for designs, absurdities in pictures, etc.--have obvious relevance to aesthetic education and development.

Aesthetic Appreciation and Criticism

Many of the tasks we presented to the children lay in the cells from our model provided by a criss crossing of rows involving appreciation and criticism and columns of graphic art and poetry as literature. The children's responses led us into several intriguing and important issues regarding processes in appreciation and criticism as well as elements of aesthetic content. Clarification of these becomes crucial for the underlying theory.

Judgment and Preference

In their response to our initial open ended probes regarding pictures and poems our children seemed to use interchangably the expressions "It's good" and "I like it." Charles for instance reacted to the Renoir painting:

It's good.

. . . . . .

I think there's a party going on. I like parties.
I like the lights, the chandeliers. . .over there.

As reported in excerpts from our other protocols the other children also made few distinctions here.

Several critical theoretical and empirical issues are posed consequently. For instance Child (1962) has found that college students' preference for paintings correlate only .12 with the judgment of quality in paintings. If Child's findings hold for the adult population in general, then there is an important empirical issue in the development of the individual's schema wherein preferences and judgments become separated. Our continuing questions remain: what is the generality of the distinction across problems and tasks.[15] What are the antecedents of such development, that is, are there curricular and instructional determinants of such schema? What are the intellectual and affective processes involved, that is, the similarities and differences in the justification of aesthetic preferences and quality.

At this point our general model stands us in good stead. Most of our discussion, as well as most of the thrust in our interviews with the children began with two dimensions of the model: kinds of experiences/roles/behaviors across art forms (literature, graphic arts, etc.). The children pulled us irresistably into the affective dimension with their "I like it" responses. Justification of preferences in paintings seems to be the intersection of a particular type of experience, kind of beauty, and level of affect. In addition, lurking within the judgment and preference issue is Broudy's general conception of aesthetic education as "enlightened cherishing." The accent in most of the work on aesthetic education tends toward the "enlightened" half of the dimension. Information, concepts and points of view tend to fit the schools better than attitude change and value clarification. At this point we think we have some intellectual leverage on these problems.

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[15] In our earlier factor analysis of pupil questionnaire reactions to teachers we were left with the belief that children's liking for a teacher was synonymous with their judgment of her as a good teacher (Smith and Kleine 1968, Smith and Kleine 1969).

Individual Standards and Justification of Preferences

As the interviewing evolved we asked some of the children which pictures or poems they liked best and why they preferred one or the other.[16] This led nicely into the problem of justification of preferences.[17] Reconsider Cathy's protocol regarding the Renoir and then the Stella painting. First the Renoir.

> What do you think of that picture?
>
> It looks like a festival. Or a dance. A picnic.
>
> Do you like the picture?
>
> Un Huh.
>
> What's the artist done as he drew the picture to make it more interesting, or make it so that you like it? How's he put it together?
>
> He put a lot in the foreground, and in the background he made it look like more people were back there.
>
> How'd he do that?
>
> He made the people in the back small. And he made them a little bit higher in the picture. And the people in the foreground, they're a lot bigger. He put something over the colors.
>
> What do you mean?
>
> He made them look like they're uh, smeared.
>
> What else did he do with the picture that made it a better picture?

---

[16] In part this was stimulated by Jeri Kupferberg's comment "You get more from the children if you have them compare pictures" and Bernie Rosenblatt's continued emphasis on the child's ability to justify his aesthetic decisions.

[17] Unfortunately we hadn't perceived as yet the quality vs preference issue and the possible contrasting line of argument so we did not test explicitly for that.

I don't know.

What do you think of that one? (Stella's Brooklyn Bridge)

It's got lots of colors in it. What are these things?

Look at It. What do you think?

Oh, they're buildings, right?

Alright.

It looks like it's in the . . . down where those round things are. It looks like a big city.

Anything else you like about the picture?

Its colors.

What do you notice about the colors?

They're bright. They stand out.

Which of these two (pictures) do you like the best?

That one.

The Brooklyn Bridge one. Why do you like that best?

Because it's got more color, and I like the colors. And it looks smaller. I don't know. It just looks sort of. . .I don't know. (Giggle)

Why would you rather have this picture than that picture? Or would you? If somebody said you can have one of these pictures for your room, or for yourself, which one would you choose?

I like that one better because it's pretty. . .both of them are pretty, but I like that one better. It's prettier, and it's got. . .the best I like is the colors.

The point to be made here is very simple. Cathy gave a quite elaborate "aesthetic analysis" of the Renoir--festival, foreground/background, high/low, small/large, something over the colors/"they're smeared." The Stella was perceived less analytically--buildings and bright colors. Yet the latter was preferred. The justification was

> "I like that one better"
> "It's prettier"
> "It's got. . .the best I like is the colors"

At this age level, the child seems to move through a progressive specification from general to particular. At the end, the particular is tied to a simple like/dislike preference which is self evident and requires no further justification. The nature of preferences and of judgments of quality, their developmental history, and the kinds of justificatory arguments seems much more subtle than the usual analyses suggest.

Aesthetic Judgments and the Justification Process in the Real World

The stimulus materials from the Binet item at level IV-6 provides an opportunity for continuing the analysis of the nature of justification of aesthetic judgments. The materials are three pairs of individual faces, "obviously" different in attractiveness. All of the children we interviewed "passed" the item, that is, they agreed with Terman and Merrill as to which individual was prettier. The reasons were relatively uniform and are typified by Bud's statement.

> Well his hair is stringy, and it's falling down. And the ears on the side of his head are sticking out. And he has somewhat of a frown on, and he has sort of a smile.

Carol's comments are similar

> Her hair is all messed up, too. It looks like her face is dirty. Her eyes are tired.

The intellectual process seems relatively simple at this level

1. the pictures are looked at, that is, perceived
2. elements which contrast are isolated--hair, ears, frown
3. implicit but accepted standards are involved; stringiness of hair, dirtiness of face, etc.

4. some elements (frown/smile) by definition contain standards of good and bad

5. the sequence seems to occur almost immediately, that is, with little reflection.

The pictures were "obviously" different, hence some of the subtleties and complexities of aesthetic comparisons and justification did not appear here.

It may be that the educational implications are equally obvious but that may be hindsight as well. Consequently we will be explicit but brief. First, aesthetic judgments are pervasive in our culture, they don't lie only in the high arts. Second, children learn to make such judgments and to carry on the process very early. The Binet data suggest that for these simple tasks the average four and a half year old can respond appropriately. What this means for stages of aesthetic development is not clear. Third, the special role of the school and within that of a special curriculum such as AEP is also not clear. Fourth, in even so simple a task as the Binet items the process is revealed. The implications for teaching seem clear, at least at first blush: for children who have difficulty with such judgments the elements can be isolated, relevant experiences planned and taught in the broadest sense of child exploration and trials, and feedback both natural and directed provided.

CONCLUSIONS

By way of summary and conclusion, several simple but important points stand out:

1. The Aesthetic Education Program, an ongoing curriculum development project, is a fertile setting for studying more general problems in aesthetics, development, and learning.

2. The methodologies labeled participant observation or educational ethnography and Piagetian interviewing or clinical method have much in common logically and are potent modes of attack on problems in aesthetic education.

3. Our tentative hypothesis remains that aesthetic development is conceptualized better as a profile than as a general trait such as aesthetic sensibility or aesthetic perceptiveness.

4. Aesthetic criticism and appreciation contain important and intriguing subproblems of preference, judgment, and justification.

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Richards, I.A. *Practical criticism*. New York: Harcourt Brace and World, 1929.

Piaget, J. *The child's conception of the world*. Paterson, N.J.: Littlefield Adams Co., 1960 (originally 1929).

B. Test Reports and Evaluation Studies by Title

HOTHOUSE AND PILOT TEST REPORTS ON AESTHETIC EDUCATION INSTRUCTIONAL MATERIALS

I. Aesthetics in the Physical World Series

Introduction to Light

Hothouse Report: July, 1973
Pilot Report: October, 1973

Introduction to Space

Hothouse Report: July, 1973
Pilot Report: July, 1973

Introduction to Sound

Hothouse Report: August, 1973
Pilot Report: September, 1974

II. Aesthetics and Arts Elements Series

Texture

Hothouse Report: April, 1971
Pilot Report: July, 1971

Part/Whole

Hothouse Report: (1) September, 1971
Pilot Report (Interim hothouse/pilot): September, 1974

Tone Color

Hothouse Report: April, 1971
Pilot Report: June, 1971

Dramatic Conflict

Hothouse Report: September, 1971
Pilot Report: April, 1972

Rhythm/Meter

Hothouse Report: (1) May, 1970
(2) April, 1972
(3) March, 1974
Pilot Report: February, 1971
(Interim) October, 1974

Setting and Environment

Hothouse Report: February, 1973
Pilot Report: October, 1973

Non-verbal Communication

Hothouse Report: June, 1972
Pilot Report: June, 1973

Shape

Hothouse Report: July, 1971
Pilot Report: July, 1972

Shape Relationships

Hothouse Report: July, 1971
Pilot Report: July, 1972

Shapes and Patterns

Hothouse Report: July, 1971
Pilot Report: July, 1972

Movement

Hothouse Report: (1) August, 1970
(2) August, 1971
Pilot Report: February, 1972

III. Aesthetics and the Creative Process Series

Making Patterns into Sounds

Hothouse Report: April, 1972
Pilot Report: May, 1974

Examining Point of View

Hothouse Report: January, 1972
Pilot Report: May, 1972

Perceiving Sound Word Patterns

Hothouse Report: (1) March, 1973
(2) December, 1973
Pilot Report: October, 1973

Relating Sound and Movement

Hothouse Report: March, 1970
Pilot Report: February, 1971

Creating with Sounds and Images

Hothouse Report: July, 1974
Pilot Report: December, 1974

Analyzing Characterization

Hothouse Report: January, 1972
Pilot Report: June, 1972

Creating Word Pictures

Hothouse Report: May, 1970
Pilot Report: February, 1971

Constructing Dramatic Plot

Hothouse Report: July, 1970
Pilot Report: February, 1971

Creating Characterization

Hothouse Report: May, 1970
Pilot Report: February, 1971

Arranging Sounds with Magnetic Tapes

Hothouse Report: August, 1971
Pilot Report: March, 1972

Forming with Movement

Hothouse Report: February, 1972
Pilot Report: February, 1973

IV. Aesthetics and the Artist Series

Actor

Hothouse Report: (1) February, 1974
(2) October, 1975

Visual Artist

Hothouse Report: (1) December, 1971
(2) January, 1975
Pilot Report: October, 1975

Choreographer

Hothouse Report: October, 1975
Pilot Report: November, 1975

Writer: Poets, Storytellers and Playwrights

Hothouse Report: October, 1975
Pilot Report: November, 1975

Composer

Hothouse Report: September, 1974

Filmmaker

Hothouse Report: July, 1975

EVALUATION STUDIES

General Surveys:

Aesthetic Education Program Extended Pilot: A Report on the Questionnaire Data
J. Riley Kunkel
October 1972

Aesthetic Education Program Initial Survey of Selected Implementation Sites 1971-1972
J. Riley Kunkel
1972

Aesthetic Education Program Survey No. 1 of Selected Implementation Sites 1972-1973
Ann O. Lane and William J. Wright
February 1974

Aesthetic Education Program Survey No. 2 of Selected Implementation Sites 1973-1974
November 1975

Pennsylvania Aesthetic Education Program:

Extended Pilot Trials of the Aesthetic Education Program: A Qualitive Description, Analysis and Evaluation
Louis M. Smith and Sally Schumacher
August 1972

Report on the First Year Pennsylvania Aesthetic Education Program
Ann O. Lane and J. Riley Kunkel
June 1973

Report on the Second Year Pennsylvania Aesthetic Education Program
Ann O. Lane and William J. Wright
November 1973

Report on Third Year Pennsylvania Aesthetic Education Program
Roger H. Edwards and Phyllis Kahan
April 1975

Final Report on Pennsylvania Aesthetic Education Program
Suzanne D. Hoffa
November 1975

Position Papers, Reports, and Studies on Evaluation:

"A Plan for the Hothouse Testing of the Aesthetic Eduation Program Materials"
Betty Hall
November 1975

"A Plan for the Pilot Testing of the Aesthetic Education Program Materials"
Albert LeBlanc and Patricia Thuernau
November 1975

"Design for Extended Pilot Study of Previously Published Aesthetic Education Program Packages"
Roger H. Edwards
August 1973

"Design for Sequencing Effects Study #1"
Roger H. Edwards
August 1974

"Generalizable Congruency as a Factor in Choosing Evaluative Models"
Roger H. Edwards
1973

"'How Does A Rainbow Feel?' Second Trial Evaluation"
Patricia Thuernau
August 1975

"Obtaining Strategic Consensus in Evaluating Innovative Curricula"
Roger H. Edwards
January 1974

"Pilot Test Report on 'Shapes' Videotape"
June 1974

"Rationale and Brief Outline of Plans for Longitudinal Study"
Roger H. Edwards
August 1973

"Report on the Extended and Sequential Studies of Aesthetics and the Creative Process"
Roger H. Edwards
May 1975

Review and Index to Research in Creativity
Thomas Johnson
1970

Review and Index to Research in Dance
Thomas Johnson
1970

Review and Index to Research in Educational Media, Volumes I and II
Thomas Johnson
1970 and 1972

Review and Index to Research in Film
Thomas Johnson
1972

Review and Index to Research in Literature
Thomas Johnson
1972

"Small Scale Evaluation of 'The Five Sense Store' Traveling Exhibition"
Prepared by staff of Smithsonian Institution Traveling Exhibition Service
October 1974

"Some Considerations for the Interfacing of the Arts and Evaluation"
Roger H. Edwards
1974

"The Child's Aesthetic Experience: An Interim Report and Position Paper"
Louis M. Smith
August 1974

Related Reports:

All the Arts for Every Child
Stanley S. Madeja
1973

"A Report on Training Evaluators, Artist-in-Residence Project 1970-1971"
1971

"Defining Behavioral Objectives for Aesthetic Education"
David W. Ecker
1969

Final Report on the Institute in Aesthetic Education for Administrators
Volume 1 "An 8 Day Week"
Volume 2 "Working Papers"
Stanley S. Madeja, Bernard S. Rosenblatt and Sherry Graziano
1974

The Artist in the School: A Report on the Artist-in-Residence Project
Stanley S. Madeja et al
1970

The Bee Hive: The Arts in Early Education
Nancy Richard and Stanley S. Madeja
1975

Evaluation Reports on the Arts in General Education Project in the University City, Missouri, Schools:

Reactions to the Hubbard-Rouse Art Curriculum in the University City Elementary Schools 1969-1971
Betty W. Hall et al
1972

Review of Formative Evaluation Activities 1969-1971
Donald Jack Davis et al
1971

Summaries of Classroom Observation of Arts in General Education Learning Materials
Patricia Thuernau et al
1972

The Transitional Year 1971-1972
Patricia Thuernau and Betty W. Hall
1973

III. Teacher Education and Dissemination

A. Mass Media

Summary Statement: Mass Media

Objectives: To produce a one hour TV special for general audiences, including parents, teachers, and students. The goal of the program will be to increase audience awareness and acceptance of aesthetic values as important to the individual and society.

Description: The show will be on color film, or two-inch videotape master of broadcast quality, 53 minutes in length, titled The Five Sense Store. It will be based upon the concepts developed in the Aesthetic Education Program of CEMREL, Inc.

The Aesthetic Education Program produced the program. This involved designing and developing one pilot program as an example of the approach to be employed; testing the effectiveness of the pilot program in the field; and completing a one-hour special, based on the content of the pilot study.

Materials: One pilot television show, fifteen minutes in length, titled Shapes, on two-inch videotape or on three four-inch cassettes. One television show, 53 minutes in length, The Five Sense Store.

Outcomes: The viewer will become more aware of the use of all the senses in recognizing, defining, and experiencing aesthetic qualities in our natural and artificial environments.

The viewer will perceive that aesthetic qualities are all around us and in all objects and events in our world and that we are continually making aesthetic judgments about them.

The viewer will be made aware that the arts, as created by artists, are the best examples of aesthetic objects or events. The arts differ from objects in nature because of the way they have been created and the personal intent of the creator, that is, the artist.

The viewer will realize that we can improve our aesthetic view or perception of our world by fuller use of all our senses and consequently this should improve the quality of life.

Status Report: As of November 30, 1975, the pilot show Shapes and the TV special The Five Sense Store will be completed.

NIE PRODUCT: THE FIVE SENSE STORE and SHAPES
(TELEVISION PROGRAMS)
(Part of the Aesthetic Education Program)

DEVELOPER/AUTHOR: CEMREL, Inc.
(Formerly Central Midwestern Regional Educational Laboratory, Inc.)
3120 59th Street
St. Louis, Missouri 63139

Stanley S. Madeja, Program Director
Nadine J. Meyers, Associate Director
Bernard S. Rosenblatt, Associate Director
Sharon Bocklage, Editorial Coordinator
Blythe Rainey Cuyler, Project Coordinator
and
Educational Audio-Visual Productions
9220 Sunset Blvd.
Los Angeles, California 90069
N. Dann Moss, President
Sterling Johnson, Director of Television Program
and
WNET/Channel 13
New York, N. Y.
David Loxton, Producer
Shirley Gillette, Education Department Coordinator
Paula Rome, Production Coordinator

NARRATIVE DESCRIPTION:

Just as human beings need social and political experiences, so also they need the aesthetic--experiences with intrinsic value and meaning which enrich life: a flawless blossom, a flash of comprehension, a painting which expresses a thought or an emotion. Through his or her ability to see and to create, each person can give a sense of order, a direction to life. Aesthetic values provide the necessary balance between one's rational mind and one's emotions, drawing deeply on the full range or resources within each individual.

The idea for a television program grew out of the desire of the Aesthetic Education Program to introduce the idea of aesthetic values and their importance to a large general audience. The general goal of the program is to have the viewer accept aesthetic values as important because of its visual immediacy and mass audience reach. It has a proven ability to attract and hold the attention of viewers, and it extends into every socio-economic level.

The content for the program was selected on the basis of concepts delineated by the Aesthetic Education Program over the years, and the translation of those concepts into multi-media instructional units. The television program will be an aesthetic entity in and of itself and will not just "show" or "talk about" aesthetics.

As a prototype for the full one hour program, a 15-minute experimental video segment titled Shapes was undertaken in order to explore the working relationship between CEMREL and a national production facility. The premise of this experimental show as taken from three Aesthetic Education Program units dealing with shape--Shapes, Shape Relationships, and Shapes and Patterns. When the feasibility of the working relationship had been established, production proceeded on the full one-hour program.

Filming has been completed on the show: Saul Bass, designer, discussing his work in environmental graphics and corporate design; Vincent Price, cookbook author, among other things, showing how appreciation of food involves aesthetic awareness and use of the five senses; Dick Martin, entertainer, showing an art collection of his favorite package designs; and Joe Campanella host, and actor, illustrating the aesthetic use of language.

Sample Segment
The Five Sense Store

JOE CAMPANELLA is somewhere on Olvera street.

JOE

Hello, I'm Joe Campanella. This is Olvera Street, in the heart of Los Angeles. I love this historic community. Here, my senses really come alive. The colors, the feel of the warming sun mingling with a variety of odors coming from the many restaurants along this street give me a good feeling. They blend into a great fragrance.

AS JOE MOVES TOWARD POPCORN STAND WE HEAR THE SOUND OF POPCORN POPPING

(he INHALES deeply, savoring the aroma)
But for me--there's nothing like the aroma of freshly made popcorn. If I could have someone invent a new cologne, it would be called, "Essence of Popcorn".
And that's one of my favorite sounds...the sound of popcorn popping.

JOE IS NOW AT THE POPCORN STAND. WE SEE A VARIETY OF CUs OF THE POPCORN ACTIVELY POPPING AWAY.

JOE

Did you ever see such a beautiful sight in your life? Those big, beautiful snow flakes of popcorn. To me, it's a miracle that they blossom from a hard, little golden kernel.

THE GIRL AT THE POPCORN MACHINE HANDS JOE AN OVER FLOWING BOX OF POPCORN. HE TAKES IT AND POURS OUT A HANDFUL.

I just love the feel of popcorn. It seems like I could hold a whole bushel of it and

	it wouldn't even weigh one ounce. (nibbling on popcorn) Mmmmm...I even love popcorn plain...but if you really want the greatest taste sensation in the world...watch...
ADDS SALT AND BUTTER	Adding a little salt and butter really does it for me... (chewing) My mother always told me not to talk with my mouth full. (swallowing) Do you realize what just happened? I've had a total experience with popcorn. To me, a total experience is when I can use all of my five senses....and that's just what I've done..
INHALING POPCORN AROMA	used my sense of smell....
SOUND OF POPCORN POPPING	hearing....
CU OF POPCORN POPPING	sight...
JOE HOLDING HANDFUL OF POPCORN	touch...
PUTTING A HANDFUL OF CORN INTO HIS MOUTH	and taste.
	And that's what this program is all about... using all our senses to appreciate the world around us. We call it, THE FIVE SENSE STORE...
INTO TITLES	OVER JOE EATING POPCORN AND WALKING AROUND OLVERA STREET
	AFTER THE MAIN TITLE
	BREAK (OR CONTINUES)
AS JOE is eating popcorn his three older children rush up to him.	1ST CHILD Daddy....daddy....how about some popcorn for me? 2ND CHILD Me too. 3RD CHILD Me too....with butter!
AS HE REACHES INTO HIS POCKET AND HANDS CHILD #1 A BILL. POPROCN CART IN B.G.	JOE (to Camera) I think this is going to cost me more than five cents!!

TITLES CONTINUE OVER MONTAGE OF VISUALS OF SCENES TO COME IN THE SHOW...
TILL END OF TITLES

EXTERIOR JOE IS ON A BIG HILL WITH A PANORAMIC VIEW OF LOS ANGELES IN THE B.G.	JOE Isn't this a beautiful city. I am an immigrant from New York City but I really appreciate and love Los Angeles. This is where I live, this is where I work. Being an outdoors type, my senses really feel alive out here.
STARTS TO MOVE	Maybe a tree grew in Brooklyn, but when I was a young, struggling actor I was too busy to notice. Now I have five children and we're outdoors as much as possible...Maybe they taught me to be more aware of my surroundings.
JOE STOOPS DOWN TO FLOWER	JOE After all, a child can appreciate a flower more than a grownup because he's closer to the ground. Anyway, during the next hour, you and I are going to take a total sense trip...(PLUS ADDITION TAG IN JOE'S OWN WORDS)
BACK ON TOP OF THE HILL WITH CITY IN B.G.	I don't know about you...but one of my favorite senses is the sense of taste. Too many of us just gulp a cup of coffee for breakfast...or grab a quick sandwich for lunch...without even tasting it.
SITTING ON ROCK	I come from an Italian background...and I remember those big Sunday dinners with all the relatives..Mmmmmmm...I can smell the lasagna now.
LOOKING IN THE DIRECTION OF THE CITY	...there are hundreds of restaurants that specialize in catering to your sense of taste, and waiting for us inside one of the best restaurants is a fine actor and renowned gourmet...and I think you Vincent Price fans are in for a big surprise.
(FOOTAGE OF VINCENT PRICE INSIDE SCANDIA..ALREADY SHOT)	

CREDITS

Card #

1. THE FIVE SENSE STORE
©1975, CEMREL, Inc.

2. Presented by
THE AESTHETIC EDUCATION PROGRAM, CEMREL, INC. and
EDUCATIONAL AUDIO VISUAL PRODUCTIONS, INC.

3. With host
JOE CAMPANELLA

4. STARRING
in order of appearance
VINCENT PRICE
ROGER MILLER
DICK MARTIN
MAC DAVIS

5. with special guests
ERNIE BARNES
SAUL BASS
B.J. COULSON
LARRY MAHAN
KENT TWITCHELL
"TOAD" THE MIME

6. ORIGINAL MUSIC BY ROGER NICHOLS

7. Executive Producers
DANN MOSS
STANLEY S. MADEJA

8. Produced by
BOB BAGLEY
BLYTHE CUYLER

9. Written by
PAUL HUNTER
Additional Material
CECIL TUCK

10. Directed by
STERLING JOHNSON

END OF OPENING CREDITS

CLOSING CREDITS

Card #

1. PHOTOGRAPHY
Bob Bagley
Sterling Johnson
Keith Merrill

2. EDITING
Alan Ferguson
Sterling Johnson

3. SOUND RECORDING
Dick Wagner
Bruce Bisienz
Alan Ferguson

4. ANIMATION
John Wilson

KINETIC SCULPTURE
Bob Gilbert

5. written by

I LOVE A RODEO	Roger Miller
I'LL PAINT YOU A SONG	Mac Davis
NATURAL CAUSES	
"VAN" MUSIC	Fallenrock

6. SPECIAL THANKS TO
CASSELL'S; SCANDIA; RODEO ASSOCIATION; LOS ANGELES BALLET SCHOOL; LITTLE LEAGUE BASEBALL OF TOLUCA LAKE; INDEPENDENT RECORDERS; PACIFIC OAKS SCHOOL, OLVERA STREET LOS ANGELES; UNITED AIRLINES; SAINT ELMO STREET ASSOCIATION; LINCOLN CENTER FOR THE PERFORMING ARTS and VIKING PRESS

7. Produced by the Aesthetic Education Program at CEMREL, Inc., a private, non-profit corporation. The development was supported under a contract with the National Institute of Education, Department of Health, Education and Welfare. However, the content does not necessarily reflect the position or policy of those agencies, and no official endorsement of these materials should be inferred.

8. THIS HAS BEEN A DANN MOSS FILM FOR EDUCATIONAL AUDIO VISUAL PRODUCTIONS, INC. and CEMREL, INC.

SUBJECT AREA (S)

Sense perception, video art, visual arts, music, dance, literature, drama, environment

Aesthetics in the everyday world; use of one's senses in a special way to perceive aesthetic qualities in the world; the creative process in the everyday world; personal decision making pertaining to aesthetics.

INTENDED USERS AND BENEFICIARIES

The target audience for the program is a general TV viewing audience which, of course, includes the teacher in the classroom and the parent of the child.

GOAL(S) OR PURPOSE(S)

The purposes of the television program are for viewers 1) to perceive the aesthetic dimension of living--the aesthetic potential inherent in the use of all our senses; 2) to value such aesthetic movements/events/happenings; and 3) to transfer or relate the perceiving and valuing of aesthetic moments into daily decision making.

PATTERNS OF USE

The Five Sense Store will be available for general television viewing on national television networks and/or local television broadcast and will also be available on 16mm film. Designing the program for general audience provides maximum flexibility for its use. It is the intent of the Aesthetic Education Program to have the program be educational and entertaining to this general audience and to be available for use as teacher-training materials.

TIME REQUIREMENTS

The program will be one hour long.

IMPLEMENTATION PROCEDURES

The Five Sense Store will be entirely self-explanatory and will need no special introduction before it is shown.

ASSURANCES AND CLAIMS

Assurances

All products developed by the Aesthetic Education Program are carefully scrutinized to eliminate any form of social bias, ethnic or sexual stereotyping, or inappropriateness of content. Any question of such materials in the program will cause an appropriately directed review of the content by a qualified person not connected with the project. The content would then be revised to eliminate such shortcomings.

Claims

Developmental evaluation of the Shapes program has shown that it is appealing to children in grades 2, 3 and 4, commanding good levels of visual attention and receiving a high enjoyment rating from them.

Evaluation of the major program to date has only been based on segments and no evaluation of a completed prototype has been undertaken. Although initial indications have been positive regarding audience enjoyment, no substantial claim can be made at this time.

AVAILABILITY

Shapes is complete and available. The Five Sense Store is scheduled for completion on November 30, 1975. Both are copyrighted.

INFORMATION CURRENT AS OF MARCH 1975

Evidence to Support Assurances and Claims for The Five Sense Store and Shapes

Evaluation of the prototype show Shapes has been carried out in two stages using approximately 270 students in grades 2, 3 and 4. In the second, pilot stage, evaluation was concerned primarily with the attention commanded by the tape and student response to a specially constructed questionnaire. Visual attention studies showed a generally high level of attention commanded throughout the tape. Only in one particularly long segment was some lessening of attention noted.

The questionnaire data found the tape popular over all three grades in which it was used. Less than 5% of the students viewing the tape stated that they did not enjoy it and approximately two-thirds of the students gave it the highest rating of "liked it a lot." Almost 90% of the students felt that other children their age would enjoy it.

Teachers viewing the tape also filled out questionnaires that allowed them to rate the tape on clarity of content, organization of content, student response to content, and technical quality. The tape was judged as "good" or "excellent" in these areas by 100% of the teachers responding for the first two categories with 50% and 80% classifying it as "good" or "excellent" in the latter two (p. 65, Pilot Report, July 1974).

The hour television program for adults has gone through one stage of formative evaluation using only segments of the planned program. At this stage eleven viewers, varying in age, sex, and other background variables were brought in to respond to segments of the tape. Although all the viewers reported enjoying the segments they viewed, a certain amount of disagreement about the tape's objectivity and clarity of theme were noted at this time (Report on First Segment of Television Show, Kahan, November 1974). Revision of the program is presently being undertaken. While no claims for this product can be made at this time, the development of Shapes has allowed for the parallel development of appropriate evaluative techniques to be used on this program. A major review of program segments is planned and findings will continually be adopted into the production of the program.

B. Learning Centers

Summary Statement: Aesthetic Education Learning Centers

Objectives: To provide for the most effective use of Aesthetic Education Program materials by teachers by

1. designing Teacher Education Centers,
2. establishing experimental aesthetic education programs in elementary schools,
3. establishing and maintaining lines of communication between the experimental schools and the Centers.

Description: The AELC is a cooperative effort among agencies (schools, teacher education institutions, arts organizations, artists, community service organizations, state departments of education, etc.) working with each other and with CEMREL, Inc. in the development of aesthetic education programs. A minimum requirement in an AELC is at least three cooperating elementary schools and one or more cooperating agencies. Components of an AELC program include: Modular Learning Environment, Administrator Seminars, Teacher Education Workshops, Curriculum Development Workshops, Consultant Services, Aesthetic Education instructional materials for students and teachers, and plans for implementation of aesthetic education programs in elementary schools.

Outcomes: The goals of the Aesthetic Education Learning Centers are 1) to provide an aesthetic environment for learning to both teachers and students; 2) to provide a facility and materials which are flexible enough so that various teacher education programs in aesthetic education can be designed and implemented; 3) to generate various methods for utilizing and extending the use of CEMREL's aesthetic education materials; 4) to generate new programs for teacher education in aesthetic education; 5) to establish aesthetic education programs in elementary schools; and 6) to generate interest in improving the design of classroom environments.

Status Report: As of November 30, 1975, eight Aesthetic Education Learning Centers will be operational; a documentation report will be completed; and the Handbook: Installation of Aesthetic Education Programs in Schools will be completed.

The following list includes the work to be completed December, 1975 - November, 1976.

1. Provide assistance to school systems and teacher education programs in the form of: workshops in curriculum design and implementation; familiarization with new materials; instructional materials for children and teachers; a Handbook for teacher education programs.

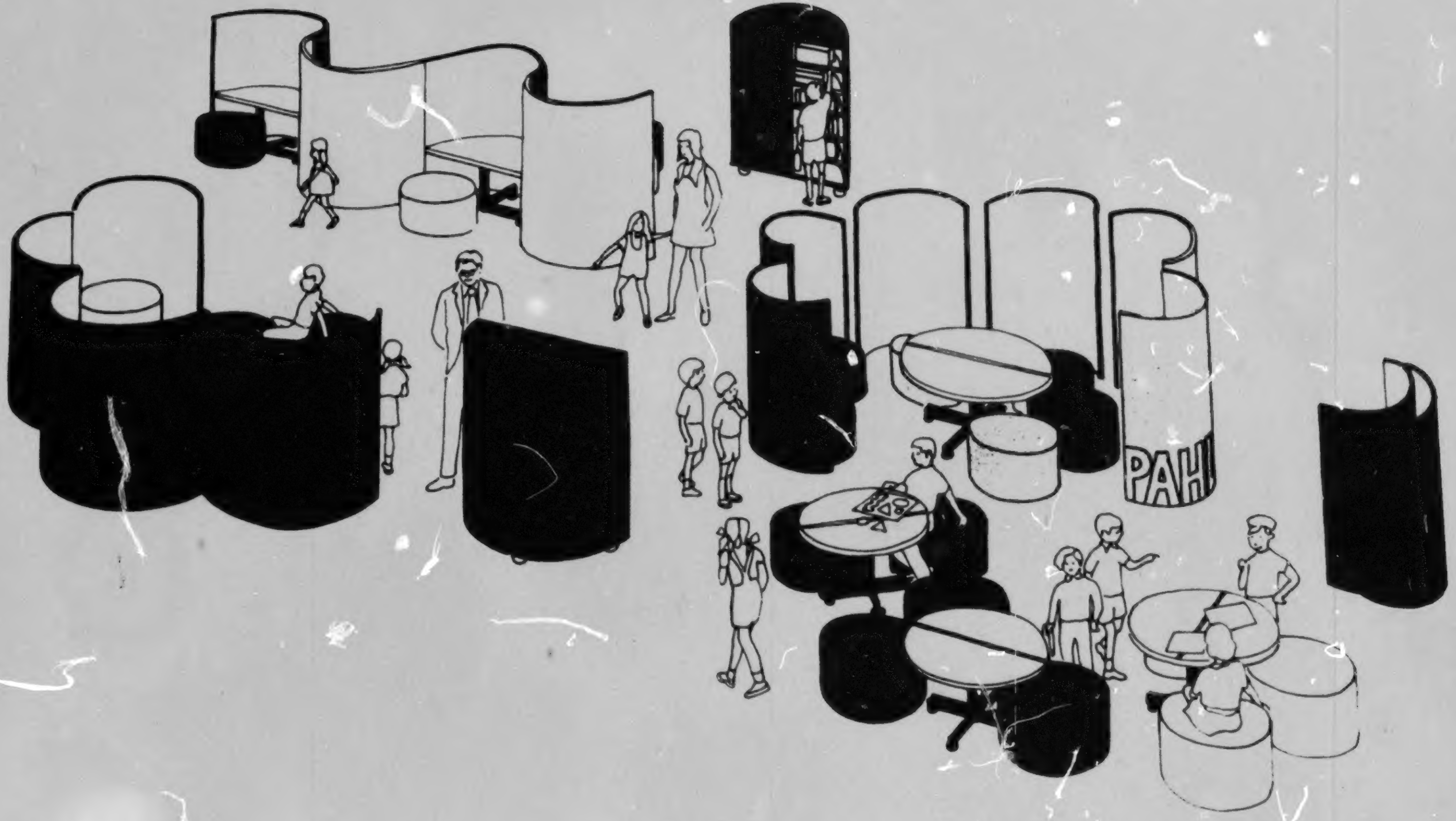
2. Coordinate lines of communication between the Learning Centers and Cooperating Schools through: bi-monthly publication of a newsletter, Our Bag; Coordinators' meetings; on site visits; and a national meeting of the Aesthetic Education Group.

3. Describe and document the development and operations of the Aesthetic Education Learning Centers and their related Cooperating Schools to derive alternative models for training teachers in aesthetic education and for incorporating these models into the Teacher Education Handbook.

4. Describe and document the integration of aesthetic education into the elementary school curricula in order to derive alternative models for relating aesthetic education to language arts, social studies, math, etc.

5. Utilize the Learning Center model as a change model which will have generalizability to other areas of educational innovation.

6. Assist with strategies for the transition of CEMREL support and management to the Centers.



Aesthetic Education Learning Center

NIE PRODUCT: AESTHETIC EDUCATION LEARNING CENTERS
(Part of the Aesthetic Education Program)

DEVELOPER/AUTHOR: CEMREL, Inc.
(Formerly Central Midwestern Regional
Educational Laboratory, Inc.)
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Bernard S. Rosenblatt, Associate Director
Sharon Bocklage, Editorial Coordinator
Bernard S. Rosenblatt, Stanley S. Madeja,
Rene David Michel-Trapaga and Dane Manis,
Product Developers

NARRATIVE DESCRIPTION

If aesthetic education is to become a reality in the nation's schools, some basic changes must be made in teacher education programs in the arts and aesthetics. CEMREL has assumed responsibility for bringing the information needed to implement innovative teacher education programs to such organizations as colleges and universities, school districts and community arts groups. The Aesthetic Education Learning Centers (AELC) developed by the Aesthetic Education Program at CEMREL are the result.

The AELC is a cooperative effort among agencies (schools, teacher education institutions, arts organizations, artists, community service organizations, state departments of education, etc.) working with each other and with CEMREL, Inc. in the development of aesthetic education programs. A minimum requirement in an AELC is at least three cooperating elementary schools and one or more cooperating agencies. The physical components include: Modular learning environment, Handbook: Teacher Education for Aesthetic Education, Handbook: Installation of Aesthetic Education Programs in Schools, "Interagency Models for Implementing Aesthetic Education," Aesthetic Education instructional packages for students and teacher, and services such as workshops and consultants.

The modular components of the Centers were carefully planned to be aesthetically pleasing and to provide an example of what an aesthetic learning environment can be. Through its activities via in-service and/or pre-service courses, workshops and institutes, the AELC provides teachers, student teachers, children, administrators, university and college personnel with the instructional and conceptual resources necessary in gaining knowledge, skills, and confidence in handling aesthetic content. It is also a vehicle for implementing new programs in aesthetic education in schools. In addition each center can provide individuals and groups with the necessary focus and orientation for improving the aesthetic climate of the community.

SUBJECT AREA(S)

Aesthetic Education: Teacher Education, Elementary Curriculum Designs, Learning Environment, Inter-agency Cooperation for Educational Change

The following is a brief description of the major components of this product:

Handbook: Teacher Education for Aesthetic Education. Teachers using this information will be introduced to a rationale, content, and ways of organizing content in aesthetic education. Areas covered in this document include: course outlines for pre-service and in-service instruction; the role of the arts specialist and the elementary classroom teacher; teaching/learning strategies; how to use community and instructional resources; and case studies of successful implementation of programs in aesthetic education.

Handbook: Installation of Aesthetic Education Programs in Elementary Schools. School personnel using this information will be introduced to a rationale for aesthetic education, what is aesthetic content, and how to make content selections when designing a program in aesthetic education. This document discusses aesthetic education as a separate area of study as well as how it can be related to the ongoing curriculum. Also included are procedures for implementation and evaluation.

Learning Environment. The modular design based on circular configurations offers many arrangements to the user. Each component is separate and moveable so the spaces can continually be altered according to function. The components are: 1) half cylindrical dividers which can be used as space dividers and/or display; 2) semi-circular work tables; 3) cylindrical foam stools; 4) a semi-cylindrical audio center with built-in components including playback, editing, synchronizing, recording, and p.a. capabilities so participants can create and play-back sound compositions; 5) a cylindrical light table, for creating and arranging visual images; 6) semi-cylindrical portable storage cabinets; 7) the Space Place, a manipulative environment consisting of a false ceiling of stretch panels, parts of which can be pulled down by weights or pushed up by styrofoam blocks, thus altering the spatial relationships within the Space Place; and 8) additional multi-media equipment, including projector stands, slide projectors, and overhead projectors.

Interagency Models for Implementing Aesthetic Education. This document delineates methods of implementing aesthetic education. Guidelines for bringing together arts activities and presentations by arts organizations, service organizations, governmental units, and business groups with aesthetic education programs in the schools are included.

Workshops and Consultant Services of four different types:

1) Consultant Services: CEMREL staff members consult with schools and agencies on areas such as needs assessment, curriculum planning and design, program assessment, dissemination, and designing learning spaces;

2) Administrator Seminars: CEMREL staff members work with administrators in providing the participant with a) a content background as to the nature of aesthetic education and the arts in education, b) developing a rationale for the inclusion of aesthetic education within the general curriculum, and c) exploring curricular and organizational strategies in implementing an aesthetic education curriculum;

3) Curriculum Development Workshops: Participants are involved in fundamental strategies of developing an aesthetic education curriculum including a) developing instructional units, b) identifying and using community resources, c) involving the specialists and the artists in the schools, d) relating aesthetic education curriculum to ongoing instruction in other subject areas, and e) testing and evaluating strategies in aesthetic education; and

4) Aesthetic Education Resources Familiarization Workshops: Participants are provided with a basic understanding of the nature of aesthetic education, its contribution to the general curriculum, and are given specific directions on the use of aesthetic education instructional units.

Specific content and agendas for workshops are finalized only after consultation with the requesting agency.

INTENDED USERS AND BENEFICIARIES

A wide range of people are the potential users and beneficiaries of the Aesthetic Education Learning Center Plan. The immediate users in the field tests include classroom teachers, arts specialists, curriculum planners and developers, teacher education staffs (in-service and pre-service), arts organizations which work with schools, learning environment planners, principals, and students.

GOAL(S) OR PURPOSE(S)

The goals of the Aesthetic Education Learning Centers are 1) to provide an aesthetic environment for learning to both teachers and students; 2) to provide a facility and materials which are flexible enough so that various teacher education programs in aesthetic education can be designed and implemented; 3) to generate various methods for utilizing and extending the use of CEMREL's aesthetic education materials; 4) to generate new programs for teacher education in aesthetic education; 5) to establish aesthetic education programs in elementary schools; and 6) to generate interest in improving the design of classroom environments.

PATTERNS OF USE

Eight Centers and 27 Cooperating Schools in various geographic locations are implementing the total Learning Center concept. There have been six basic patterns developed within the eight Centers. The unique aspects of the patterns are due both to the combination of cooperating agencies working with AELC and their program structures. These are as follows:

1) Cooperating Agencies:
CEMREL
Professional Arts Organization (Performing Arts Foundation, Long Island, New York)
Board of Cooperative Education Services (BOCES)
Focus: provides performing artists to work with teachers and children.

2) Cooperating Agencies:
CEMREL
School District
Local University
(This pattern is in operation in Memphis, Tennessee and Jefferson County, Colorado)
Focus: on aesthetic education staff development and curriculum revision; each cooperates with a local university; one is housed in an elementary school and the other is in a district operated Staff Development Academy.

3) Cooperating Agencies:
CEMREL
Adjoining School Districts
University Consortium
Focus: three school districts (Oakland and Antioch, California and New York City) in cooperation with several universities joined efforts to form a Center which is housed in an arts centered elementary program in one of the districts.

4) Cooperating Agencies:
CEMREL
Arts Council
Private University
Focus: a consortium arrangement between a private university (Oklahoma City University) and a local arts council (Oklahoma City) comprise another approach.

5) Cooperating Agencies:
CEMREL
State University
Focus: a state university (Illinois State University) incorporates the Center into its CORE-oriented elementary teacher education program.

6) Cooperating Agencies:
CEMREL
State Department
School District
Focus: a state department of education (Pennsylvania) in cooperation with a local school system has located the Center in a vacated school building, works with state Intermediate Units, and cooperates with a senior citizen and a special education program located in the same building.

ASSESSMENT PROVISIONS

Each site is provided assistance in developing those assessment devices which meet their needs. Examples of such devices include attitude scales, checklist for categories of implementation, i.e., designation of staff, community resource utilization, etc. The instructional resources have built-in assessment devices. The Handbooks include Aesthetic Education Program findings and procedures as well as assessment devices developed at the eight Centers.

TIME REQUIREMENTS

The amount of time required will vary according to whether partial components are implemented or a total program is developed. Once it is ordered and manufactured, a learning environment could be installed in two days; courses/institutes can last from three days to a full term. Time requirements vary according to the scope of work decided upon by the site. The variations relate to the level of implementation, i.e., a partial or total program in aesthetic education. A complete AELC program can be estimated to take two years for total implementation.

IMPLEMENTATION PROCEDURES

A series of steps is followed in the installation of an AELC program: 1) the agency contacts CEMREL expressing interest in the total AELC program or any of its components; 2) an initial meeting is scheduled for key personnel of the agency to discuss the nature of the program, services provided, costs, responsibilities, etc.; 3) a second meeting is scheduled if necessary to answer questions and make presentation to other parties within the agency; 4) a decision is made for implementation and agreements are signed; 5) a specific time line is established and an agency staff is selected; 6) existing curricula are assessed and an aesthetic education curriculum is designed; 7) instructional resources are determined and purchased; 8) a learning environment is installed; 9) staff development training takes place, i.e., administrator seminars, curriculum development workshops, instructional resource familiarization workshops, etc.; 10) community involvement is determined and secured; 11) assessment and documentation procedures are established; 12) the program or component is implemented; 13) assessment and documentation of implementation takes place; and 14) a final report which includes recommendations for revision and expansion is made.

MATERIALS, EQUIPMENT, AND PERSONNEL REQUIREMENTS

Required Items	Quantity Needed	Cost Per Item	Replacement Rate	Source if Different from Distributor
Instructional resources for the classroom	1 set per 6 students	*		
Instructional resources for teacher education	1 set per student	**		
Learning Environment	1 per classroom	**		
"Handbook: Installation of Aesthetic Education Programs in Schools"		**		
"Interagency Models for Implementing Aesthetic Education"		**		

*See catalog entries for CEMREL's Aesthetic Education Program packages.
**To be determined upon completion of testing.

Summary Cost Information

To install a total AELC program would cost approximately $60,000 over a two year period. Variations occur because of the size of a district, amount of instructional materials, number of learning environments, etc. The cost cited is based on the above materials list.

ASSURANCES AND CLAIMS

Assurances

Since the testing of this product is not yet complete, only limited assurances and claims can be made at the present time. The testing is proceeding as defined in the Basic Program Plan (CEMREL, 1972) and the Aesthetic Education Group Model, (CEMREL, 1974). At the completion of the testing in November of 1975 additional assurances and claims will be made as appropriate.

Information gathered by careful observation and questionnaires at each of the eight AELC's indicates no harm has resulted from the use of this product.

Plans and instructional materials are carefully scrutinized to eliminate any form of social bias, ethnic or sexual stereotyping, or inappropriateness of content. Any question of such bias or inappropriateness of content is directed to qualified persons in order to consider how plans and materials should be revised to eliminate such shortcomings that are identified.

Claims

At all stages of development, a National Advisory Committee of educational psychologists, educators, and arts educators review the substance and form of the plans, instructional materials, and information relevant to the actual operation of the Centers. An evaluation by a person trained in field study techniques is carried on during the implementation of the Centers in order to study their development and operation and to detect any shortcomings in the plans and materials or in their implementation. In that way inappropriate or harmful content can be corrected at an early stage (See The Aesthetic Education Group Model, CEMREL, 1974). In addition, the Aesthetic Education Program's instructional materials used in the Centers undergo separate evaluation as noted elsewhere in this catalog and as defined in the Basic Program Plan (CEMREL, 1972).

Based on preliminary information gathered, the following claims are made: a) the Centers and their components can be installed and the installation is manageable in a variety of institutional settings; b) the Centers are able to undertake their own planning and programming after installation; c) the Centers can develop a diversity of approaches to in-service and pre-service teacher education in aesthetic education; and d) the Centers can facilitate communication and cooperation among diverse educational and arts programs.

AVAILABILITY

Learning environments, teacher/administrator training, student instructional resources, and consultant help are available upon contract; "Handbooks" and teacher education resource units should be available by November 1975, as they are now being currently tested. The materials will be copyrighted.

Distributor(s): Student materials are published by:

The Viking Press/Lincoln Center for the Performing Arts
625 Madison Ave.
New York, N.Y. 10022

The remaining components are distributed through:

CEMREL Institute
3120 59th St.
St. Louis, Mo. 63139

INFORMATION CURRENT AS OF MARCH 1975

Evidence to Support Assurances and Claims for Aesthetic Education Learning Centers

Careful Development:

Assurances and claims for careful development are supported by the Basic Program Plan, Aesthetic Education Program (CEMREL, 1972) and by The Aesthetic Education Group Model (CEMREL, 1974). Those documents describe the Aesthetic Education Learning Centers, indicate how the components are to be implemented, and specify how the implementation efforts are to be monitored and assessed. As the documents indicate, regular reviews by a National Advisory Committee (of psychologists and educators) and on-site coordinators of the Centers provide a careful check on the development of the Center in terms of avoiding harmful or inappropriate activities. In addition the ongoing evaluation by CEMREL, which utilizes extensive on-site observation, interviews, and questionnaire data collection procedures, provides a means of carefully monitoring the operation of the Centers.

Implementation:

Each of the eight Aesthetic Education Learning Centers described above has been successfully installed. All major components of the eight Centers are operational (see The Aesthetic Education Group: A Progress Report, CEMREL, 1974, for a detailed description of the early progress of each of the eight Aesthetic Education Learning Centers). The preliminary indications are that the installation and operation of an Aesthetic Education Learning Center is manageable, though the analysis is incomplete.

Effectiveness:

Each of the eight Aesthetic Education Learning Centers has taken primary responsibility for planning and implementing the teacher education activities that comprise the program of services available to Center users (The Aesthetic Education Group: A Progress Report, CEMREL, 1974). University courses, summer institutes, in-service workshops, and museum docents' workshops are among the aesthetic education training activities offered through the Centers (The Aesthetic Education Group: A Progress Report, CEMREL, 1974). The preliminary activities of the Centers indicates that the Centers have facilitated new lines of communications and cooperation among educational and arts agencies. The cooperative work among such agencies as a city arts council, a public school district, a private university, a national arts foundation, and numerous local arts agencies is but one example of such communication and cooperation (see Interagency Cooperation Dissemination Plan: A Progress Report, CEMREL, 1974 and The Aesthetic Education Group: A Progress Report, CEMREL, 1974).
Note: Appropriate additional assurances will be made on completion of the evaluation of this product.

NIE PRODUCT: THE FIVE SENSE STORE
(Part of the Aesthetic Education Program)

DEVELOPER/AUTHOR: CEMREL, Inc.
(Formerly Central Midwestern Regional
Educational Laboratory, Inc.)
3120 59th Street
St. Louis, Missouri 63139

Stanley S. Madeja, Program Director
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Bernard S. Rosenblatt, Associate Director
Sharon Bocklage, Editorial Coordinator
Stanley S. Madeja, Robert Falk, Nadine J. Meyers
and Edward Sweda, Product Developers

NARRATIVE DESCRIPTION

The Five Sense Store is a traveling exhibit which illustrates the variety of experiences available to studnts who participate in the Aesthetic Education Program.

In the Five Sense Store: An Aesthetic Design for Education you can watch TV, play with a word picture puzzle, listen to a radio, stretch yourself in an elastic band, pile up styrofoam blocks to build your own environment. This three-part exhibit draws upon the environment and the arts to involve children in experiences of aesthetic choice and introduce new concepts in education and aesthetic awareness.

As a visitor to the exhibit you are first met by the kaleidoscope of sounds and images in today's sound/image society. Looking into large cylinders, you see television programs, listen to a radio, or hear a cacophony of sounds from our everyday environment. Images narrow your focus to the use of these same media in the schools.

You see that children are the receivers of information through the technological hardware and they are creators through the media. You see students using cameras, working computers, listening to tapes, editing film - the range of media in classroom and studio situations. A large panel confronts you with some serious questions: How much are children allowed, even encouraged, to use the media? How can their experiments with technology be made more involving? How can we help them really use the technology, come to value it, and, ultimately, affect the quality of the sound/image society itself?

Specifically, how can aesthetically designed instructional materials that use the technology be created? This question brings you to a long, serpentine wall that graphically shows the process of developing aesthetic education materials. Starting with the content, an idea is built into instructional materials that are tested, revised, and used by children in the schools. Along with this graphic visualization you hear taped interviews with students and teachers and see slides of children working with Aesthetic Education Program materials.

Now, go to the activity area, reach into the storage drum and pull out a "What is...?" game card. "What is a thing that lives in a wet flower?" You respond by arranging word cards to create a word picture. Go to another drum and use a photograph, frame corners, and a grease pencil to select and mark specific photographic subjects that express your personal point of view. At still another station you arrange sounds on tape cassettes to compose your own musical score.

In a big room called The Space Place you organize spaces using styrofoam modules and raise or lower ceiling panels. Use other dark and light panels to create walls and sculptural forms. Now focus images and select sounds for your structure. You've used elements of our sound/image society and made aesthetic decisions - you've created a unique sensory environment.

SUBJECT AREA(S)

An Aesthetic Design for Education: The Arts

The Five Sense Store provides a general introduction to the concepts of aesthetic education. The activity stations within the exhibit allow the students to feel textures; to write plays; to express emotion through dramatized body movements; to create new word combinations; to make visual compositions with shapes; to examine a photographer's point of view; to arrange a musical composition; and to design a personal space. A tour through the exhibit would serve as an appropriate introduction to any of the Aesthetic Education Program materials or may be used to develop a general awareness of aesthetics in those communities where the materials are not being used in the schools.

INTENDED USERS AND BENEFICIARIES

The exhibit is designed for participation of children from age five and older. Adults, as well, enjoy the exhibit and profit from it; not only do they have the opportunity to see what is available in aesthetic education for children, but for many of them the exhibit may also be a first exposure to aesthetics.

GOAL(S) OR PURPOSE(S)

The purpose of the Five Sense Store is 1) to show a model for developing instructional materials which fill the need for using modern technology and design techniques in a quality way; 2) to demonstrate the materials of the Aesthetic Education Program; 3) to emphasize that aesthetic considerations should be an integral part of the development of all instructional materials - books, films, charts and so on; and 4) to make available to museums a traveling exhibit which can serve as a launching pad for new ideas in arts education, so that the museum becomes a clear link between the instructional materials of the exhibit and the aesthetic experiences in the community.

PATTERNS OF USE

The Five Sense Store is a self-contained traveling exhibit with a large variety of activities that are taken from the experiences offered in the Aesthetic Education Program materials. It may be used by museums and other institutions that wish to offer their communities an opportunity to experience new ideas in arts education. The exhibit serves as a participatory display for children of all age levels, giving them an initial exposure to aesthetic education; as a source of information for adults, creating an aesthetic awareness of their environment; and as a training center for teachers, giving them the opportunity to examine various concepts in arts and aesthetic education.

ASSESSMENT PROVISIONS

The first public opening at the National Collection of Fine Arts in Washington, D.C. was a test site. Because of the variety of cities the museum travels to and the differences of intent by each sponsor, CEMREL does not furnish standard evaluation. However, each site has provided for their own evaluation plan. The information is then furnished to CEMREL and the Smithsonian Institution Traveling Exhibition Service (SITES).

TIME REQUIREMENTS

A minimum of an hour and a half is required for students to go through the exhibit. More time will be needed when children wish to take part in all of the activities.

IMPLEMENTATION PROCEDURES

Museum staff, docents, and teachers who will be involved in conducting tours through The Five Sense Store should study the Five Sense Store Handbook. Workshops may be planned previous to the opening of the exhibit to acquaint the staff with the exhibit. A section in the Handbook gives guidance for what should be covered in such workshops.

The Five Sense Store requires a rather large area in which to be exhibited. It is designed to be set up in three rooms: Room 1 deals with An Aesthetic Design for Education; Room 2 is the Activity Area and allows for participation; Room 3 is The Space Place and allows for personal involvement in designing a space.

CEMREL recommends approximately 4,500 square feet for the exhibition: preferably divided into 1,500 sq. ft. in each of three rooms.

Approximately two groups of 20 to 30 children can be handled in the two activity areas in 20 to 30 minute sessions.

Audio-visual equipment is provided with the exhibition as an integral part. Maintenance required is limited to replacing bulbs and to the original wiring for each installation. Refurbishing is done on a yearly basis.

The *Installation Guide* describes processes to install the Sound Image Society and Activity Stations, and CEMREL personnel are available to install the Space Place.

The Handbook provides procedures for adults who will be staffing the activity stations and The Space Place.

Students of kindergarten age and up are able to deal with any of the activities unless there is a specific note to the contrary given in the guidelines for that activity.

MATERIALS, EQUIPMENT, AND PERSONNEL REQUIREMENTS

Activity Stations:

A list of all materials for the stations of the activity center follows.

The Texture Station

2 Sets of texture bags (8 bags per set)
2 Sets of photos, groups A and B (20 photos per set)

The Dramatic Plot Station

2 Level 1 game boards
2 Decks of cards (including 32 brown, character/setting cards; 79 green, incident cards; 3 white, imagination cards; and 9 yellow, game cards)
1 Level III game board
1 Level III rules sheet
1 Complete card deck (including character/setting, incident, and imagination cards plus 4 pink, conflict cards; 10 red, crisis cards; and 7 blue, resolution cards)

The Characterization Stations

Masks: 6 Sets of Masks (6 ma[illegible] per set)
Puzzles: 6 Puzzles (24 pieces per puzzle)

The Tension Station

6 Movement bands of different lengths and colors

The Magnetic Tape Station

6 Headsets for sound unit

The Word Pictures Station

3 Sets of blue word cards (about 70 cards per set)
3 Sets of "What is ...?" Game cards (24 cards per set)

The Shapes Station

6 Sets of irregular shapes (57 shapes per set)
6 Sets of geometric shapes (44 shapes per set)

The Point of View Station

3 Sets of frame corners (2 corners per set)
5 Photos, padded in hundreds (one pad of each in storage drum, others packaged separately)
12 Red pencils

The Tone Color Station

6 "How Many?" boards with Tone Color Word Sheet on reverse
6 Sets of circular cards (26 cards per set)
1 Tape cartridge

The Space Place

Title panel
Wall and ceiling membrane panels
Connectors
Styrofoam blocks
4 Slide projector units
3 Sound units

Summary Cost Information

The Five Sense Store

Rental fee for six weeks	$ 800.00
Shipping Cost	1,000.00 (estimated)

The Space Place

Styrofoam blocks	$300 to 500
Fee for specialist to install exhibit	200.00
Transportation fee for specialist	200.00 (minimum)

Handbook to the Five Sense Store	$4.00

Personnel Required for Product Adoption and Implementation

Because of the unusual nature of this exhibit, its optimum success depends on the efforts of well-prepared museum staff and docents and well-oriented teachers. A minimum staff is four adults to thirty students. The staff should be prepared through workshops which are described in the Handbook.

ASSURANCES AND CLAIMS

Assurances

The first public opening at the National Collection of Fine Arts in Washington, D.C. was a test site. Both CEMREL and the Smithsonian used this location to evaluate and revise the exhibit. Changes to make the exhibit more durable and transportable were made after the trial opening.

Since being revised, it has traveled to eight additional sites and has had relatively no trouble adapting to any situation or environment. Although The Five Sense Store is a singular unit designed to travel, the modular "furniture" has been adapted to the Aesthetic Education Learning Centers, confirming that it could be replicated if desired.

At present, the developers have not received any reports of harm associated with the use of this exhibit. Also, the materials used in The Five Sense Store were carefully scrutinized to eliminate any form of social bias, ethnic or sexual stereotyping, or inappropriateness of content.

Claims

The major claim to be made about CEMREL's Five Sense Store Traveling Exhibition is that it is the only one of its kind that allows children and adults a "hands on" relationship with Aesthetic Education materials in various community settings.

The exhibit broadens knowledge of Aesthetic Education.

Teachers and students responded enthusiastically to the exhibition, tying it back to instruction in the classroom.

For children - the exhibit is self-motivating and self-directed.

Excellent training program for teachers and teacher education students.

Explains techniques of research and development of educational products.

Involves communities, schools and museums in a joint effort.

Offers children opportunity to experience aspects of dance, theatre, photography and visual arts.

Although intended for a two year tour, because of requests, the exhibit's schedule has been extended a third year.

AVAILABILITY

The Five Sense Store is available from the Smithsonian Institution.

Smithsonian Institution Traveling Exhibition Service (SITES)
Smithsonian Institution
Washington, D. C. 20560

INFORMATION CURRENT AS OF MARCH 1975.

Evidence to Support Assurances and Claims for The Five Sense Store

Assurances:

For documentation of assurances see Evaluation of exhibit (Smithsonian, April 1973), and NIE Product Catalogue Entry, Aesthetic Education Learning Center, for adaptation or replicability.

Claims:

The documentation of these claims comes from multiple sources letters, site evaluations and newspaper articles.

In early developmental phases of the Five Sense Store, the CEMREL Aesthetic Education Staff reviewed other exhibits (i.e., Kaleidoscope) and found their plan for the Five Sense Store exhibit unique in nature. Children can participate in multi-sensory experiences and create using their own ideas in a new setting.

Of the 39 teacher responses received during the exhibit's evaluation at the National Collection of Fine Arts, 35 felt they had a clear concept of the term "aesthetic education." In addition, the majority stated that the term broadened their own notions. All teachers stated they would use ideas presented in the exhibit in their classroom teaching, while students in eight classrooms on both elementary and secondary level expressed the desire to relate the experience to other school activities.

On the whole, The Five Sense Store Exhibit has been a self-motivating and self-directing experience for children. A newspaper article, "It All Makes Sense," written by Andrew Barnes of the Washington Post (April 10, 1973) stated, "With only a little guidance from grown-ups the 4th graders from Alexandria's Lyles-Crouch School began a game of assembling a story's plot, as a playwright or author might, but without need for the skills of writing." This type of direction and motivation was also seen in The Space Place (one of the rooms in the exhibit): "When 25 children were brought in (to The Space Place) they were shown the materials available and then set loose. Groups of three or four immediately began purposefully building enclosures with the foam blocks. All immediately were involved" (Barnes).

Besides a creative atmosphere for children, The Five Sense Store also provides an excellent training program for teachers. The Lakeview Center for the Arts and Sciences at Peoria, Illinois, stated in a letter to colleges and universities in the area: "The exhibit not only provides an aesthetic experience for children, but it also serves as an excellent training program for teachers. The display, which includes a section aimed directly at teachers, offers information concerning the teaching of aesthetics as well as an explanation of the techniques of research and development of educational products."

In the Washington Post, ("It All Makes Sense," April 10, 1973), Andrew Barnes explained: "Training sessions have been offered for teachers, using the materials but they are also supplied with instructions so a teacher unfamiliar with teaching aesthetics will be able to follow the program without special instructions."

Teachers were generally enthusiastic about the exhibit and 100% of the teachers who responded to the Smithsonian questionnaire felt that a museum was a legitimate place to expose the public to new ideas in education. Judi Contrucci,who runs the National Collection's regular museum education program for elementary pupils, told Andrew Barnes she felt this exhibit will "build the kind of audience that we would like to have visit the museum." Ms. Boiarsky, Director of Lakeview Center Public Affairs, was quoted in the Journal Star of Peoria, Illinois (Sunday, March 24, 1974) to have said, "This exhibit is an excellent example of how schools and museums can work together to provide children with complete education..."

The Five Sense Store offers a unique approch to education by encouraging children to experience various art forms through their senses.

The Washington Post mentioned two of the exhibit's activities in the article, "It All Makes Sense";

> In an alcove surrounded by wavy mirrors they climbed into huge elastic bands, to get the feel of how a dancer stretches...a cassette console allowed them to compose diverse sounds and harmonies, without needing first to master the techniques of music.

For too many children, this exhibit is the only opportunity for them to have a "hands-on-sensory" relationship with the arts. Because of present day economy, an arts program is usually not offered in school environments. Ms. Boiarsky of Lakeview Center, in her interview (Journal Star, Peoria, Illinois, Sunday, March 24, 1974) supports this claim of The Five Sense Store:

> Today, because of depleted funds, many schools are unable to provide specialists to teach children the arts. Often the general teacher is not equipped to teach these subjects or at least only one or two of them. The Five Sense Store offers children an opportunity to experience some aspects of the dance, theatre, photography and the visual arts.

WORKING DRAFT
10/29/75

THE START-UP YEAR

A Report of the Aesthetic Education Group

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INTRODUCTION

The October meeting of the Aesthetic Education Group will devote a considerable amount of time and effort to planning the scope and substance of future AEG efforts. An appraisal of the past two years (or less) was to be considered an important part of such planning so that future plans could reflect the productive elements of the two-year experience. This report by a project observer was intended to be a constructive stimulus to such an appraisal.

Specifically, the intent of the report is to highlight events and accomplishments which seem significant (from the observer's persepctive, at least) and to identify issues which seem to have implications for future AEG efforts.

The ideas and issues in this report are largely derived from field notes taken during site visits and during the three previous AEG meetings. Conversations with Center Coordinators, teachers, principals, CEMREL staff and the like provided another valuable source of ideas. Information from selected questionnaires was also considered.

Although these data are broad in scope, they will not be used principally to provide an exhaustive history of the AEG's first year. Rather, they will be used as description and illustration to serve a critical analysis of this period in the development of the AEG. Such an analysis we hope will clarify important characteristics of the network as they have emerged and focus salient issues that affect planning for the future. Our analysis has been organized according to major features of the original model for implementation, but also includes discussion of the phenomena not represented or only implicit in the model. The interpretation should, of course, have a ring of truth and relevance to AEG participants in the sense that the interpretations seek, in part, to capture shared experiences and shared meanings. However, the thinking and self-appraisal of AEG participants should not be limited by this report, realizing that it necessarily reflects only one of many ways to select and cast the data.

The AEG model--its organizational structure, theoretical base, and substantive goals--provided a general framework for examining the operation of the AEG and its participating agencies. By comparing the observed operation of the AEG against the intended operation the observer hoped to identify factors, both within and among participating agencies which either facilitated or inhibited the particular change processes intended by the AEG model. Such knowledge can be helpful in deciding whether modifications are needed in the AEG approach and/or its goals. Further, the knowledge can be a basis for confirming, refining, or rejecting some of the emprirical assumptions upon which the AEG model is based.*

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*These are assumptions that the model makes about particular characteristics of the participating agencies which would make the various change strategies instrumental to the model's goals.

THE AESTHETIC EDUCATION GROUP: A DESCRIPTION OF THE MODEL

The Aesthetic Education Program of CEMREL, with the advice and assistance of other professionals, planned and initiated the "Aesthetic Education Group," a network of special purpose Aesthetic Education Learning Centers, whose overarching purpose was to enhance the teaching of aesthetic education in the nation's schools (The Aesthetic Education Group Model, 1974). The intervention effort was undertaken in order to fill an apparent void in the areas of teacher education and curriculum planning for aesthetic education, since these were felt to be instrumental to the primary goal of enhancing the aesthetic sensibilities of children.

As conceived in 1973 and early 1974, the Aesthetic Education Group was to be a confederation of six or seven "Aesthetic Education Group Associates" scattered throughout the nation. Each Group Associate was to be clustered around an Aesthetic Education Learning Center which would serve as an important hub of aesthetic education activities in its region and be part of a national network with the other Centers and CEMREL. The model called for each Learning Center to establish formal relationships with at least three "Cooperating Schools" for the purpose of staff and curriculum development in aesthetic education. Each Center with its working relationship with Cooperating Schools was termed an "Associate" member of the Aesthetic Education Group. The model also provided for the inclusion, on a less formal and less intensive basis, of additional teacher education agencies, schools, arts organizations or professional organizations; such organizations were termed "Affiliates" of the AEG.

Then, the model of the Aesthetic Education Group includes the basic elements and configurations indicated in Figure I.

Figure 1: The Aesthetic Education Group

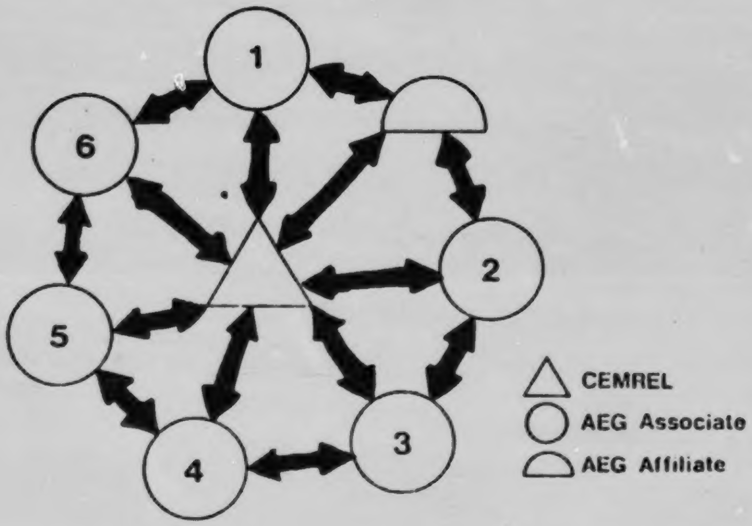
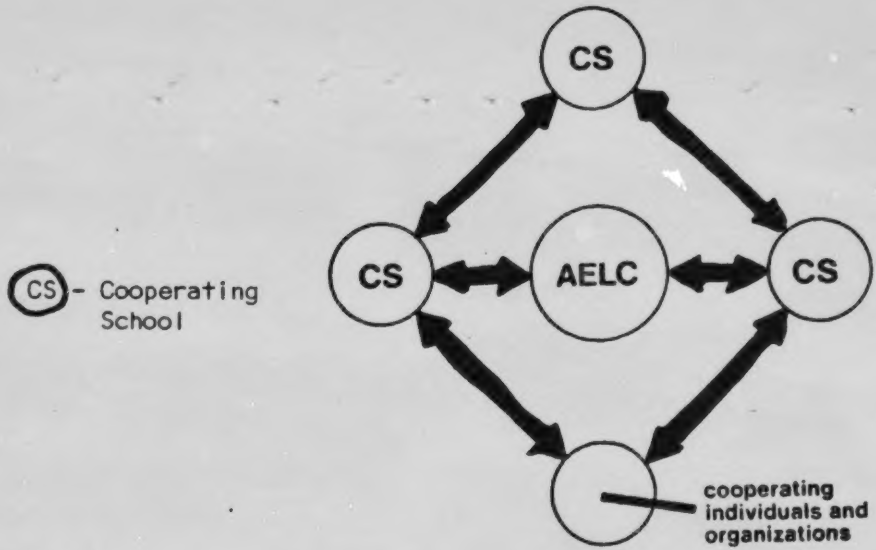


Figure 1 Insert: Structure of an AEG Associate



As Figure I suggests, CEMREL was the parent agency in the Aesthetic Education Group. CEMREL, with the cooperation of local organizations which already had an aesthetic or arts in education program going, initiated each of the Group Associates by providing instructional materials and equipment, consultant support, staff training, and administrative assistance in formalizing relationships within and among participating organizations.

The analogue to a family relationship among the elements of the AEG model is appropos in other respects. As the parent agency, CEMREL intended to interact with each Group Associate (CEMREL's progeny in terms of the analogue) and to have Group Associates interact with each other in ways that appeared promising for the integration and improvement of aesthetic education in the regions served by the Group Associates. It should be noted that the conception of parenthood used here is one that places a high priority on nurturing independence and self-sufficiency in its offspring.*

As an intervention model, the Aesthetic Education Group Model was in some ways more complex than other intervention models which attempt to disseminate relatively tangible and prescriptive products. The AEG model did not have, nor was it intended to have, a purely unitary product--such as a new text book, educational hardware, a highly prescriptive curriculum package, or a single model of teaching. Though the model did utilize some of the above types of products, its primary purpose was to be a catalytic mechanism through which school personnel, teacher education agencies, arts organizations, various community service agencies, state departments of education, and others interested in aesthetic education could work together (in various organizational arrangements) to improve the teaching of aesthetic education in the nation's schools. As the initiating agency, CEMREL stated that the concern for aesthetic education should be the central focus of the AEG; CEMREL did not specify what the particular product (or alternative products) should look like. It is in that sense that the AEG model differed from a product diffusion model. The "product(s)" of the AEG model could be divergent rather than convergent. A key assumption of the AEG model was that each Group Associate should be free to develop and support aesthetic education approach(es) and teacher education approach(es) that were best suited for its particular situation, even though the approach(es) might differ from the approaches of other Group Associates.

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*The analogy to the family has at least one important shortcoming which must be noted here. Unlike offspring in a family, each participating agency has a unique history separate from its association with CEMREL. In no sense are the AEG Associates totally dependent on or subject to CEMREL. The responsibilities and benefits are, in fact, reciprocal, and the Group Associates exercise considerable autonomy.

Elements of the AEG Model

An overview of the AEG model has been presented above. What follows is a more specific description of elements of the model--i.e. Group Associates, Aesthetic Education Learning Centers, Cooperating Schools, and Affiliates--and the tasks they were expected to engage in as part of the AEG:

Group Associates. The term "Group Associate" designates a regional cluster of agencies working with each other, with other Group Associates, and with CEMREL in the area of aesthetic education. Specifically a Group Associate would include the following: (a) One Aesthetic Education Learning Center, with a person designated as coordinator (to administer the affairs of the Center and serve as representative of the Group Associate; (b) Three Cooperating Schools; and (c) One or more Affiliate Agencies, if such agencies desired to participate.

The formal plan for the operation of the model was spelled out for participating agencies by CEMREL, Inc. in a number of meetings and correspondence in 1973 and early 1974. The total model was presented to representatives of the proposed Aesthetic Education Group through two formal documents (A Model for Implementation of Aesthetic Education and a draft Memorandum of Understanding) (**Appendix** A) at a February 1974 meeting at CEMREL.

Under terms of the agreement CEMREL, Inc. and each participating agency agreed to work toward the establishment and operation of an Aesthetic Education Group Associate during the year and one half period (ending November 30, 1975) covered by the agreement.

As part of the agreement, the agency (or agencies) sponsoring an AELC were to designate a person to serve as coordinator of the AELC with one or two other agency personnel, as representatives in the Aesthetic Education Group.

In effect, each AELC with its coordinator and other designated personnel was the key agency in the Group Associates with the term Group Associate simply referring to each regional cluster of agencies.

The importance of each of the seven Group Associates was further emphasized by the nature of their relationship with CEMREL, Inc. through the operation of the AEG. The AEG, specifically the representatives of each AELC (the coordinator and one or two other representatives) together with the director of CEMREL's Aesthetic Education Program, director of Teacher Education of AEP, and Coordinator of Teacher Education, was intended to function as a national coordinating council for the aesthetic education efforts of participating agencies.

Aesthetic Education Learning Center. There were to be seven Aesthetic Education Learning Centers. Each AELC, though perhaps different in some respects from others, was to be an aesthetic and functional learning environment for various kinds of in-service and pre-service teacher education. The AELC's were to be used by administrators, teachers, arts specialists, and others interested in aesthetic education. Each of the seven AELC agencies was asked to develop, within the guidelines outlined by CEMREL, a plan for operating its Center in a manner well suited for the particular situation. CEMREL spoke of the need for diversity in the belief that a single plan would be insufficient to fit situational variations.

The actual plans developed by the Centers represented six different approaches to teacher education in aesthetic education. Roughly, and at the cost of oversimplification, the following approaches were offered for using the environment, resources, and personnel of the AELC's:

(a) An independent performing arts organization would develop close relationships with three local school districts in an urban setting, and would concentrate efforts on one elementary school in each district. The AELC would offer the schools support in aesthetic education by providing aesthetic education workshops to teachers and administrators, providing performing artists to work in the schools with the teachers and children, and providing aesthetic education materials and a learning environment at the Center. The AELC would attempt to cooperate with a local teacher training institution through the offering of joint courses and clinical experiences for pre-service students.

(b) Two school district-based AELC's would focus on aesthetic education staff development and curriculum revision in the elementary schools in their respective districts, concentrating initially on three or four schools. Each AELC would also cooperate with a local university in the offering of joint courses, for credit, through the AELC and the university department of education. Teacher workshops would also be a vehicle for in-service training. In one district the AELC will be housed in an elementary school, while in the other the AELC will be in a district-operated Staff Development Academy.

(c) Two school districts and four teacher training institutions would join efforts to form an AELC. Though the AELC would be housed in one of the school districts, the services and resources of the Center would be available for teacher workshops, independent study and materials development, college courses and clinical experiences (such as internships at the Center), and the like.

(d) A consortium arrangement between a private university and a local arts council comprise another approach to using the AELC. The organizations are located in an urban setting in the midwest, but they would also try to develop a close relationship with an Indian school in a rural setting. The work of the Center would include: teacher workshops in aesthetic education, university courses and clinical experiences at the Center (the Center would be housed at the University), use of local performing arts groups in the schools working with teachers and children in aesthetic education, and an AELC sponsored state-wide conference in aesthetic education for anyone interested in aesthetic education.

(e) A state university with a large-scale teacher training program would locate the AELC at the university and would incorporate the use of the Center and content in aesthetic education into its CORE-oriented teacher training program. The aesthetic education elements could comprise up to one third of a teacher candidate's teacher education program. The university would at the same time establish cooperative relationships with three or more local elementary schools in order to provide support in aesthetic education through workshops. consultant services, use of the Center, and offer pre-service teachers for clinical experiences under the supervision of a university staff member in the schools.

(f) A state department of education plans to offer a variety of kinds of in-service support and university people in aesthetic education through the establishment of an AELC in an abandoned school building in proximity with participating institutions. The AELC would also work through the in-service network and support services of the state-supported Intermediate Units, a staff development and curriculum support organization long established in the state. The AELC would encourage local teacher training institutions to send students to the Center for extended internships. Further, the Center would be made available evenings and Saturdays for workshops and unstructured opportunities for teachers, administrators, parents, arts specialists, and children to interact with each other and with the environment of the Center (and the various resources in aesthetic education). A second year effort would be made to stimulate the establishment of similar Centers throughout the state.

More specific objectives for the AELC's were stated as follows in the statement of the model:

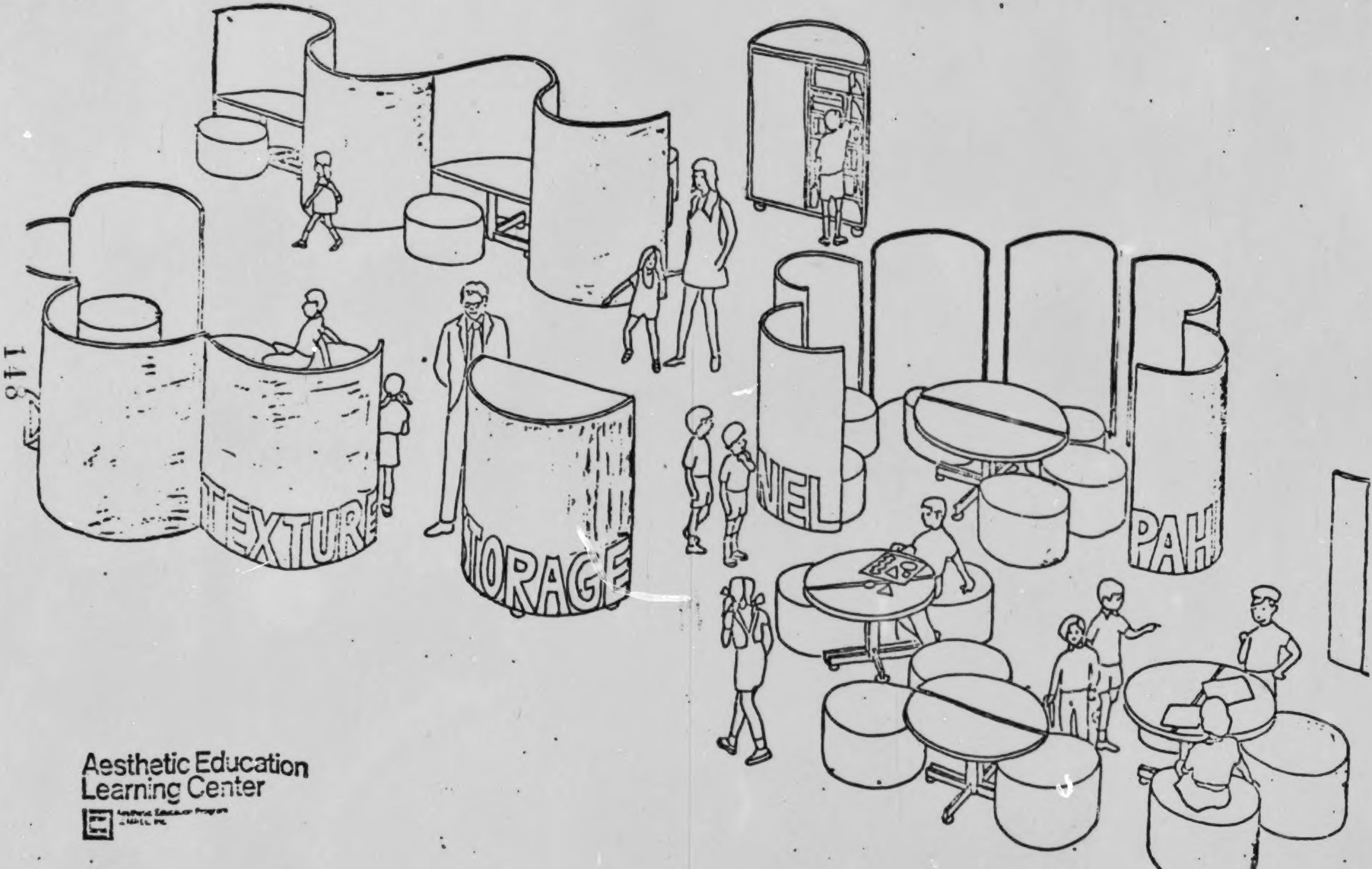
1. to provide an aesthetically pleasing environment for teachers and students for aesthetic learning;
2. to provide a facility and materials which are flexible enough so that various in-service and pre-service teacher education programs in aesthetic education can be designed and implemented;
3. to provide a population and space for the testing of instructional materials for teachers in aesthetic education.
4. to generate over a two-year period various methods for utilizing and extending use of CEMREL's aesthetic education instructional materials;
5. to generate new plans for teacher education in aesthetic education;
6. to facilitate cooperation among schools, teacher education programs, arts organizations, artists, community service organizations, state departments of education, and others who are concerned with aesthetic education.

Figure 2 illustrates an exemplary design for the Centers. The format is circular with many arrangements available to the user.

Insert Figure 2 about here

Each component is mobile; so the spaces can continually be altered according to function. The components are:

1. Half cylindrical dividers with sections 3 and 4 feet in diameter which can be used as space dividers and/or display;
2. Semi-circular tables 3 and 4 feet wide which provide work surfaces and can form group or individualized learning;
3. Circular foam stools for seating and/or work surfaces;
4. A sound center for a creation of sound compositions;
5. A visual center, which would include a light table, for creating and arranging images;
6. Storage cabinets for materials and supplies from CEMREL and other instructional materials applicable to aesthetic education.



Aesthetic Education
Learning Center

Aesthetic Education Program
CEMREL, INC.

Figure 2

Other auxiliary equipment should include slide projectors, overhead projector, and other types of media that would be applicable to the Centers program. It is assumed that each agency will provide these.

Cooperating Schools. Each AELC would develop close and formal relationships with three elementary schools within its region. The "Cooperating Schools" were to receive sets of CEMREL's aesthetic education materials, specifically classroom sets of the ten titles available. They also have highest priority for use of the Center's resources. These Cooperating Schools were also to serve as demonstration sites where visitors could observe aesthetic education materials and teaching approaches in use.

Affiliates. Schools and other agencies that had less intense and less formal ties to the AELC than have the Cooperating Schools were to be termed Affiliates. A central consideration in being an Affiliate was being tied into the communication network of a Group Associate and having at least limited use of Center resources.

THE AEG IN OPERATION: THE START-UP YEAR

The Participants

The participants who agreed to take part in the AEG--either as Centers, Cooperating Schools or other associated agencies--represented a complex array of education-related agencies. The seven original Centers drew on the advice, support, and sponsorship of no fewer than 78 agencies (See Figure 3). Among the participating agencies were 15 colleges and universities, 23 elementary schools, 10 school districts, and 11 local and regional arts agencies. The seven Centers were nationally distributed, directly touching 9 states and being accessible to additional states.

The following pages give a brief description of each Center, its Cooperating Agencies, a range of its activities, the populations* it has served, and a demographic description of its Cooperating Schools.

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*In these descriptive, "others" includes officials, employees, and members of educational, governmental, professional and community service organizations and agencies; private citizens; and persons associated with universities.

Figure 3. AELC Inter-Agency Relationships

	ISU	OCU	Jeffco	Memphis	Oakland Antioch	PDE	PAF	totals
Elementary Schools	3	3	3	5	3	3	3	23
School Districts	3	3	1	1	4	3	3	18
Colleges and Universities	1	1	3	1	5	2	2	15
Arts Agencies		6	2	3				11
Other local education - related agencies		5	1	1				7
Regional or national education - related agencies (Including CEMREL, Inc.)*	1	2	2	1	1	2	1	4**
Totals	8	20	12	12	13	10	9	78***

* It should be noted that each AELC is also formally connected to the others through the AEG network.

** The number in this space indicated only the number of different agencies, since two agencies appear more than once.

*** This represents the total number of agencies participating in the AEG.

Aesthetic Education Learning Center: Oklahoma City

Address of Center: Oklahoma City University
Northwest 23rd and North Blackwelder
Oklahoma City, Oklahoma 73106

Coordinators: Claire Jones
Marilyn Myers

Formal Opening of the Center: September 5, 1974

Description: A consortium arrangement between Oklahoma City University and the Oklahoma City Arts Council is the basic organizational arrangement through which this Center is maintained. Through the consortium arrangement the Center is able to work cooperatively with a variety of diverse agencies in promoting aesthetic education in the schools and community. The Center is located in a large multi-purpose room at the University and is available for both preservice and inservice teachers. The Center provides a variety of services such as teacher workshops in aesthetic education, clinical experiences, facilitation of performing artists' visitations in area schools, and a statewide conference on aesthetic education.

The Cooperating Schools affiliated with the Center are Monroe School (Oklahoma City), Windsor Hills School (Putnam City), and Concho Indian School (Concho).

Cooperating Agencies: Junior League of Oklahoma City
Oklahoma State Department of Education
Oklahoma State Arts Council

Range of Activities: Materials familiarization workshops; curriculum planning workshops; use of student and teacher materials in preservice program; presentations to different organizations; artist in the school programs; inter Cooperating-School program exchanges.

Population Served: 9/74 - 10/75

Teachers/Administrators:	501
Students:	1,500
Parents:	950
Other:	827

OCU

Cooperating Schools: #1 Monroe School, Oklahoma City District
4700 North Linn
Oklahoma City, Oklahoma 73112

Principal: Ms. Lois Austin

Students: 215, average class size of 25

Teachers: 10

Core Teachers: 10

Curriculum Organization; K; 1-2 (team teaching; 3-4 (self-contained); 3 classes of hearing impaired.

Community Setting: Largely residential neighborhood of single family housing; composed of a mixture of professionals, blue collar, and some welfare recipients; middle SES, urban.

#2 Windsor Hills, Putnam City District
2909 Ann Arbor
Oklahoma City, Oklahoma 73127

Principal: Mr. Hugh J. Goodall

Students: 815, average class size of 24

Teachers: 30

Core Teachers: 11 (all grade levels and specialists represented)

Curriculum Organization: K (self-contained); 1-6 (departmentalized)

Community Setting: Suburban; mostly singly family housing; professionals, managerial persons, business persons; middle to upper middle SES.

#3 Concho Indian School, Bureau of Indian Affairs
Concho, Oklahoma 73022

Principal: Ms. Jessie Hill

Students: 240

Teachers: 16

Core Teachers: 8 (all grade levels represented)

Curriculum Organization: Multi-grade grouping and team-teaching (1-3; 4-5; 6; 7-8)

Community Setting: Concho is an Indian boarding school in rural area 40 miles west of Oklahoma City; children are referred on basis of need, mainly from western and central Oklahoma; home backgrounds characterized by low income, highly mobile families, low achievement, and inadequate health provisions.

Aesthetic Education Learning Center: Performing Arts Foundatin of Long Island

Address of Center: 97 Little Neck Road
Centerport, New York 11721

Coordinators: Kas Bendiner
Sandy Chapin

Formal Opening of Center: September 13, 1974

Description: The Performing Arts Foundation grew directly out of the ESEA Title III, Huntington (Long Island) PACE Project. The Foundation operates a year-round professional theatre, an Arts-in-Education Program, a Theatre Institute, and is the Humanities and Arts Program of the New York State BOCES III area. The Arts-in-Education Program provides an Artists-in-the-Schools Program whereby individual artists or the Improv Company are contracted for by the schools. This service includes performances and artists working with students and teachers in the schools to demonstrate the use of the arts as tools for learning in all areas of the curriculum. As part of the Theatre Institute titled CREATIVE CLASSROOM I and II, in-service teacher training workshops are offered.

The Cooperating Schools affiliated with the Center are East Side School (Cold Spring Harbor), Birchwood School (South Huntington), and Little Plains School (Huntington).

Cooperating Agencies: BOCES III; State Department of Education; Huntington Arts Council; Hofstra University.

Range of Activities: Materials familiarization workshops; curriculum planning workshops; use of student and teacher materials in in-service programs; artist-in-the schools program; community arts festival; and PTA programs.

Population Served: 9/74 - 10/75	Teachers/Administrators:	108
	Students:	2,735
	Parents:	450
	Other:	50

PAF

Cooperating Schools: #1 Birchwood Elementary, District #13 South Huntington
Whitman Annex
31 Walt Whitman Road
Huntington Station, New York 11746

Principal: Mr. William J. Wagner

Students: 730

Teachers: 32, plus specialists

Core Teachers: 12

Curriculum Organization: 1-6 self-contained (except for math and science in 6th grade)

Community Setting: Middle class, suburban, bedroom community; single family residential.

#2 Little Plains, Harbor Field Schools
Old Field Road
Greenlawn, New York 11740

Principal: Mr. Robert Dolce

Students: 620 (average class size of 26)

Teachers: 32, including specialists

Core Teachers: 9 (representing all grade levels)

Curriculum Organization: K-6, self-contained except in 1-2 and 4-5 classrooms

Community Setting: Suburban, single family residential. Professionals and other white collar. Middle to upper middle SES.

#3 East Side School, Cold Spring Harbor Schools
334 Main Street
Cold Spring Harbor, New York 11724

Principal: Dr. Donald A. White

Students: 305 (average class size of 22)

Teachers: 14

Core Teachers: 8

Curriculum Organization: Multi-age in 1-2; self-contained in 3-6

Community Setting: Suburban, single family residential; managerial executives, professionals, persons who own their business; middle to upper SES.

Aesthetic Education Learning Center: Oakland/Antioch, California

Address of Center:
START Center
Oakland Public Schools
1025 Second Avenue
Oakland, California 94606

Coordinators:
Stan Cohen
Jim Miller

Formal Opening of Center: October 2, 1974

Description: The public school districts of Oakland and Antioch, California, joined efforts to establish the Oakland/Antioch Aesthetic Education Learning Center. Though the Center is housed in Oakland, the services and resources of the Center are available to both school systems. The diversity of resource agencies involved in the Center give it a pre-service and in-service orientation. The Center is available for a variety of activities such as teacher workshops, independent study, materials development, university courses, and clinical experiences with children.

A unique feature of the Center is its location within a newly-created, kindergarten through third grade, arts-centered school. The coordinator of the Center is also director of the K-3 school. Such a setting for the Center will provide rich opportunities for teacher education activities with immediate access to children in a program which has an aesthetic education emphasis.

The Cooperating Schools affiliated with the Center are Arts Magnet School (Oakland), Lafayette School (Oakland), and Belshaw Elementary (Antioch).

Cooperating Agencies: California State Department of Education; Alameda County Schools; Contra Costa County Schools; California State University, San Francisco; University of California, Berkeley; St. Mary's College; California College of Arts and Crafts; California State University, Hayward.

Range of Activities: Demonstration workshops for Title III and County Schools; artist workshops with Teacher Shelter; in-service workshops for Oakland Schools, teachers, and parents; demonstrations for visitors from throughout the country as well as for students in teacher training at local universities; community artists working with teacher and students; materials familiarization workshops.

Population Served:	Teachers/Administrators:	109
10/74 - 10/75	Students:	1,356
	Parents:	60
	Other:	320

Oakland/Antioch

Cooperating Schools: #1 Lafayette Elementary, Oakland Schools
866 17th Street
Oakland, California 94607

Principal: Mr. Charles Schmuck

Students: 700 (average class size of 28)

Teachers: 26

Core Teachers: 4 (representing grades 3, 4, 6 and reading specialist)

Curriculum Organization: Some IPI, special instruction in reading and math, many special programs

Community Setting: Inner city in large city; economically depressed neighborhood; many housing projects; evidence of urban decay; low income families, often with father absent.

#2 Belshaw Elementary, Antioch Unified Schools
2801 Roosevelt Lane
Antioch, California 94509

Principal: Mr. Mno Grant

Students: 596 (average class 28 in primary, 31 in intermediate)

Teachers: 20

Core Teachers: 6 initially (each grade), now most teachers participate

Curriculum Organization: Self-contained classrooms (limited grouping in reading and math)

Community Setting: Small town setting; much local industry; blue collar; residential areas largely single family housing; stable neighborhood.

#3 Arts Magnet School, Oakland Schools
Third Avenue and East 11th Street
Oakland, California 94606

Advisor: Mr. Stan Cohen

Students: 60 (volunteered because of interest in alternative school)

Teachers: 3 certified, 2 paraprofessionals, 1 coordinator, approximately 3 parent volunteers daily)

Core Teachers: 3

Curriculum Organization: K-3 non-graded (arts-centered)

Community Setting: Students are drawn from the Oakland district. The Arts Magnet asked for volunteers and took on first come basis while trying for even distribution on age, sex, and ethnic background.

Aesthetic Education Learning Center: Memphis, Tennessee

Address of Center:
Douglass School
1650 Ash Street
Memphis, Tennessee 38108

Coordinators:
Alice Swanson
Dennie L. Smith

Formal Opening of Center: October 16, 1974

Description:

Under the auspices of the Memphis City Schools and Memphis State University Education Department, the Memphis Aesthetic Education Learning Center serves in-service and pre-service teachers in the Memphis area. Located in a Memphis elementary school, the Center is easily accessible to Memphis teachers. The school setting of the Center also permits teachers in training to work directly with children. Though the Center will initially concentrate its efforts on the Cooperating Schools (five in this case), the longer range goal is to provide in-service support for all of the Memphis schools.

The affiliation with Memphis State University permits the accreditation of some of the various kinds of teacher education activities offered through the Center. For example, the Center and Memphis State University jointly conduct through the Center a yearly university credit course in aesthetic education for area teachers.

The Center is housed in two adjoining elementary classrooms. Each of the rooms is carpeted and equipped with moveable interior partitions so that the space can be divided.

The Cooperating Schools affiliated with the Center are Georgian Hills Elementary, Gordon Elementary, White Haven Elementary, Cromwell Elementary, and White Station Elementary

Cooperating Agencies: Brooks Memorial Art Gallery; Junior League; Memphis City Arts Council

Range of Activities: Materials familiarization workshops for schools; two-week summer course; workshops for docents, university students and Community Action Services staff; performing arts groups; art show from Brooks Memorial.

Population Served:
10/74 - 10/75

Teachers/Administrators:	414
Students:	9,131
Parents:	511
Other:	177

MEMPHIS

Cooperating Schools: #1 Georgian Hills Elementary, Memphis Schools
3930 Lewier
Memphis, Tennessee 38127

Principal: Ms. Lucille M. Jones

Students: 400

Teachers: 15 classroom teachers, plus special title programs

Core Teachers: 6 (all grades represented)

Curriculum Organization: 4-6 self-contained

Community Setting: This school is in a quiet residential area. Out busing for racial integration results in a large percentage of children coming from outside the immediate neighborhood; parents mostly unskilled to skilled blue collar, less than 5% professional.

#2 Gordon Elementary, Memphis Schools
780 Decatur
Memphis, Tennessee 35107

Principal: Mr. Ray Thomas

Students: 560 (average class size of 29)

Teachers: 21 (no art specialist except P.E. and Orf Music

Core Teachers: 9 (all grades represented)

Curriculum Organization: K, 4, 5, 6 and special education self-contained

Community Setting: School is in an economically depressed area of the city; high unemployment; busing for racial balance has this school paired with a school in a more prosperous area of the city.

#3 Cromwell Elementary, Memphis Schools
4989 Cromwell Road
Memphis, Tennessee 38118

Principal: Ms. Lora L. Strickland

Students: 470 (average class size of 30)

Teachers: 17 classroom teachers

Core Teachers: 6

Curriculum Organization: K-3 self-contained

Community Setting: School setting is suburban, residential and middle class; busing has resulted in over half of the students coming from outside the immediate neighborhood.

#4 Whitehaven Elementary, Memphis Schools
4783 Elvis Presley Boulevard
Memphis, Tennessee 38116

Principal: Ms. Mary A. Suggs

Students: 612

Teachers: 23 plus 3 resource teachers and part-time P.E. specialist

Core Teachers: 5

Curriculum Organization: K-6 self-contained except for informal and limited grouping in math

Community Setting: Approximately 2/3 of children are eligible for free lunch program, generally from economically depressed area of city.

#5 White Station Elementary, Memphis Schools
518 South Perkins
Memphis, Tennessee 38117

Principal: Mr. R.J. Duncan

Students: 400 (average class size of 28)

Teachers: 23 classroom teachers (half are in special education) and 3 resource teachers

Core Teachers: 8

Curriculum Organization: K-6 self-contained generally, but some departmentalization in 5th and 6th

Community Setting: School is in a changing neighborhood; urban; economically stable.

Aesthetic Education Learning Center: Jefferson County, Colorado

Address of Center:

Jefferson County Public Schools
809 Quail Street
Lakewood, Colorado 80215

Coordinators:

Jim Allison
Larry Schultz

Formal Opening of Center: October 25, 1974

Description:

The Jefferson County, Colorado School District, near Denver, is located in the school system's Staff Development Academy, the Center is available to all school district personnel. The operation of the Center differs from the other Centers in that it concentrates on in-service teachers. Also somewhat unique is the school district's strong commitment to in-service training through its own Staff Development Academy.

The Cooperating Schools affiliated with the Center are Sun Valley Elementary (Lakewood); Earle Johnson Elementary (Golden); and Little Elementary (Arvada).

Cooperating Agencies: Denver Art Museum, University of Northern Colorado.

Range of Activities:

In-service workshops for total arts in education program; workshops for other curricular areas, such as, social studies; resource library; a meeting place for various groups such as environmental education, guidance counselors and League of Women Voters; resource for Heritage Square, Denver Museum of Natural History and Teen Mothers School; curriculum planning workshops.

Population Served: 10/74-10/75

Teachers/Administrators:	798
Students:	8,479
Parents:	-0-
Others:	818

Jefferson County

Cooperating Schools: #1 Earle Johnson Elementary, Jefferson County
701 Johnson Drive
Golden, Colorado 80401

Principal: Mr. Jerry Williams

Students: 440 (average class size of 32)

Teachers: 15 classroom teachers, plus librarian, art, music, P.E.

Core Teachers: 4

Curriculum Organization: K-6, about half team-teach, the rest are self-contained

Community Setting: Suburban, generally middle SES, mixture of professionals and blue collar; housing is mixture of single family residential and multi-unit apartments.

#2 Little Elementary, Jefferson County
8448 Otis Drive
Arvada, Colorado 80003

Principal: Mr. Larry Schrader

Students: 650 (average size K-2 is 27 3-6 is 31.5)

Teachers: 24.5

Core Teachers: 7

Curriculum Organization: K-6 school is organized into 5 multi-age instructional units (5-6 year old; 6-7; 7, 8, 9; 8, 9, 10)

Community Setting: Suburban; upper middle SES; professionals predominate in community; new, residential. School is new also, open space in design.

#3 Sun Valley Elementary, Jefferson County
107000 West Exposition Drive
Lakewood, Colorado 80215

Principal: Mr. Harry Morgan

Students: 450 (average class size 26.5)

Teachers: 15 classroom teachers, 20 including art, music, P.E., Ed. Handicapped

Core Teachers: 8

Curriculum Organization: K-6 self-contained classrooms

Community Setting: Suburban, composed of three types of communities: 1) professional, 2) blue collar, 3) apartment dwellers (of mixed SES); generally a prosperous neighborhood with residential and commercial areas.

Aesthetic Education Learning Center: Illinois State University

Address of Center:
School of Education
Illinois State University
Normal, Illinois 61761

Coordinators:
John Goeldi
John Sharpham

Formal Opening of Center: February 5, 1975

Description:

The Aesthetic Education Learning Center for this Group Associate is located at Illinois State University, Normal, Illinois. The university has a large-scale teacher education program. Operated through the Curriculum and Instruction wing of the education department, the AELC has primarily a pre-service orientation. The initial idea of the AELC is also supported by the dean of fine arts, undergraduate dean, and by the art, theatre, and music departments. By integrating aesthetic education content within the structure of three levels of core courses, the AELC is able to comprise up to one-third of a teacher candidate's teacher education program. Through the AELC, the university is establishing a close working relationship with three local elementary schools in order to provide support in aesthetic education through workshops, consultant services, and use of the Center by school staff.

The university has assigned a professor in the Curriculum and Instruction wing to be coordinator of the AELC and has given this person one-quarter release time for coordinator duties. In addition, the university has provided a graduate assistant to assist the coordinator.

The Cooperating Schools affiliated with the Center are: Lincoln Elementary (Peoria), Emerson Elementary (Bloomington), and Thomas Jefferson Elementary (Joliet).

Cooperating Agencies: Illinois State Department of Education

Range of Activities: Meeting place for CORE I classes and other university classes; involvement sessions for elementary students of the Metcalfe University Lab School; liaison with State Department of Public Instruction.

Population Served: 2/75-10/75

Teachers/Administrators:	240
Students:	1,195
Parents:	-0-
Others:	1,018

ISU

Cooperating Schools: #1 Lincoln Elementary, Peoria Schools
317 North State
Peoria, Illinois 61605

Principal: Mr. Robert Carruthers

Students: 423

Teachers: 21 plus 4 special teachers

Core Teachers: 21

Curriculum Organization: Pre, K-8, 6-8 departmentalization, 1-5 reading grouping

Community Setting: Low SES, inner city, no federal housing, mobile population.

#2 Emerson Elementary, Bloomington Schools
709 South Clinton
Bloomington, Illinois 61701

Principal: Ms. Maxine Zook

Students: 161

Teachers: 7 classroom, P.E. and Music, 2 other resource teachers

Core Teachers: 7

Curriculum Organization: K-6 self-contained

Community Setting: Low-mid SES, mainly blue collar; old building, to be closed soon. Small town with state university.

#3 Thomas Jefferson Elementary, Joliet Schools
2651 Glenwood Avenue
Joliet, Illinois 60435

Principal: Ms. Rosamond Flynn

Students: 437

Teachers: 15 classroom teachers and 4 special education

Core Teachers: 15

Curriculum Organization: K self contained; 1-5 grouping in language arts and math

Community Setting: Affluent neighborhood of new school, high achievement children generally.

Aesthetic Education Learning Center: Harrisburg, Pennsylvania

Address of Center:
The Ways and Meaning Place
909 Green Street
Harrisburg, Pennsylvania 17126

Coordinators:
Bill Thompson
Clyde McGeary

Formal Opening of Center: April 14, 1975

Description: The Pennsylvania Aesthetic Education Learning Center operates within the Pennsylvania Department of Education. Such a model provides a sharp contrast to the other AELCs and provides another alternative model for change. The AELC is coordinated by a department person who is presently working closely with teachers in the area of aesthetics. The Center functions through some formal and informal structures of the state intermediate units The Center also serves parents, as well as pre-service and in-service teachers in the Harrisburg, Pennsylvania area. Unique to the Pennsylvania AELC is its location in an arts center facility called THE WAYS AND MEANING PLACE. In this context the AELC reaches out to include program interpretation with senior citizens, preschool children and special education.

The Cooperating Schools affiliated with the Center are: Hamilton Elementary (Harrisburg); Sporting Hills Elementary (Mechanicsburg); and Union Elementary (Belleville).

Cooperating Agencies: Pennsylvania Department of Education: Bureau of Curriculum Services, Bureau of Compensatory and Special Education, and Bureau of Planning and Evaluation; Pennsylvania Department of Public Welfare.

Range of Activities: Workshops in AELC; consultant services; loaning of materials; Arts File (State wide newsletter); artists-in-the-schools program; touring workshops around state; work with preschool, special education, and senior citizens.

Population Served: 4/75-10/75	Teachers/Administrators.	695
	Students:	1,674
	Parents:	-0-
	Others:	39

PDE

Cooperating Schools: #1 Sporting Hills Elementary, Cumberland Valley Schools
210 Sporting Hill Road
Mechanicsburg, Pennsylvania 17055

Principal: Mr. Jim Smith

Students: 690 (average class size of 27)

Teacher: 27 plus art, music, and P.E. specialists

Core Teachers: 10

Curriculum Organization: K-2 self-contained; 3-5 departmentalized.

Community Setting: Suburban; middle to upper middle SES, large contingent of military personnel in community.

#2 Hamilton Elementary, Harrisburg Schools
1201 North Sixth Street
Harrisburg, Pennsylvania 17105

Principal: Ms. Janie G. Dodd

Students: 650 (average class size from 25 to 30)

Teachers: 33 classroom teachers, plus 2 art, 2 music

Core Teachers: 9

Curriculum Organization: K-5 self-contained; 6 is departmentalized.

Community Setting: Urban, inner city; signs of urban decay; housing is in poor repair generally; low SES.

#3 Union Elementary, Mifflin County Schools
Belleville, Pennsylvania 17004

Principal: Mr. Francis O'Donnell

Students: 274 (average class size of 27)

Teachers: 12

Core Teachers: 8

Curriculum Organization: 1-6 generally self-contained, yet with some departmentalization in upper grades in reading

Community Setting: Small town, rural setting; single family housing; middle SES; largely blue collar; stable community.

Major Events and Activities

Much has happened within the AEG since the representatives first met at CEMREL in February 1974 to consider the AEG model and to plan the first few months of its implementation. During the spring and summer of 1974 the Center Coordinators and other key agency persons began to lay the groundwork for each Center. Cooperating Schools were identified and subsequently established as members under terms of the AEG Memoranda of Understanding, a three-way agreement between CEMREL, a Center, and its Cooperating Schools were signed. This agreement spelled out the contractual obligations of each party. By September 1974 selection of Cooperating Schools was complete in all Centers except Pennsylvania and Illinois.

Preparation of the physical space for the Centers also took place during the first spring and summer. The "look" of a Center varied from site to site depending on the size, arrangement, and decor of the physical space. This individuality remained even after the installation of the standard furnishings and materials supplied by CEMREL.

Each Center was also provided the instructional units for the elementary school developed by CEMREL, a library of CEMREL published documents and teacher materials for testing and further use.

Beginning in September 1974, each Center in conjunction with CEMREL had a formal opening for the purpose of drawing public attention to the Center and its services. These public openings served notice that the Centers were in operation, that they were "open for business." By April 1975 each of the seven Centers had its formal opening and was officially in operation. For each of the openings the news media were contacted and notices in the form of letters and flyers were sent out to individuals and organizations in the region; including political, educational, and arts leaders.

The 1974-75 school year was the first full year of operation for the Centers, with the formal openings providing initial visibility for the existence and purpose of the Centers. Even the first half year saw the Centers involved in a number of training activities, including package familiarization workshops (featuring CEMREL's AEP packages), brief orientation workshops for Cooperating School personnel, and general in-service sessions in aesthetic education. Most, though not all of these early activities were devoted to developing good working relationships with partner agencies, especially the Cooperating Schools. Numerous presentations, discussions, and planning sessions were devoted to cultivating the kinds of relationships, both formal and informal, that enabled all but two sites to begin the 1974-1975 academic year with a Center that was operational in its major components.

The Center orientation workshops and AEP package familiarization workshops formed the core of the start-up training during that year, with the training duties being shared by CEMREL staff and local Center staff. The primary recipients of these sessions were teachers from Cooperating Schools. In few instances did the teachers represent the total faculty of a school. More typically, six to ten teachers from each school would participate in Center activities, forming a cadre or core group which would undertake the initial implementation efforts in their respective schools. The core teachers provided an identifiable group for sustained contact between the Cooperating Schools and the Center. The core teachers were identified in at least two ways: self selection after a presentation at their school and invitation by the CS principal.

In addition to the start-up workshops, five Centers provided training on a continuing basis for core teachers during the fall semester of 1974 by utilizing teacher time after school hours and during limited released time sessions. Typically these workshops met regularly at the Center or at one of the Cooperating Schools. The teachers met after school for six to ten sessions of about two hours each.

Not all of the Centers' efforts were devoted to Cooperating Schools. Individual Centers have planned and implemented a broad array of activities for various audiences. The following items indicate the range of these additional involvements: (A complete list of activities can be found in Appendix C.)

(a) Workshops for museum docents.

(b) Local and regional arts festivals.

(c) Accredited courses in aesthetic education. For example, one university has a full semester core course in the arts for all elementary education majors; another Center in conjunction with a university established a two week summer course; another Center offered a special course in aesthetic education designed around a set of Teacher Education materials developed by CEMREL; and another Center offers a six week in-service course.

(d) Center workshops and presentations for professional groups such as school superintendents, elementary school principals, music teacher, and physical education teachers.

(e) University courses in aesthetic education or an integrated arts approach for pre-service teachers.

(f) Use of the Center as a special learning environment for local school classes and their teachers.

(g) Use of the Center as a meeting place for conventional university courses.

(h) Workshops and other experiences for senior citizens.

(i) Learning experiences for children with learning disabilities.

(j) Use of the Center as a setting for dramatic productions.

(k) Use of the Center to plan and implement a university-wide interim session related to aesthetic education.

(l) School district-wide jewelry workshop.

(m) Participatory exhibit on Spaces and Structures in a local art museum. (The exhibit was attended by 7,629 children, teachers, parents, and others over four month period.)

(n) Filmmaking workshop for area teachers.

(o) "Arts for the Special Child" workshop for area teachers.

(p) Creative Dramatics in-service for teachers.

(q) Interdisciplinary photography in-service for teachers.

Although it is difficult to describe a "typical day" of Center activities because of their wide range of involvements, the above list of activities indicates the major kinds of activities that Center staff are called upon to do. The activities require a substantial amount of planning and directing. In many instances follow-up is also accomplished, when participants request it and when Center staff are able to visit participants in their schools. For example, a teacher will bring her class to a Center for work with a particular package or Space Place activity; this will be followed up by a visit to that classroom by a Center representative for a demonstration lesson.

In addition to the special events noted above, the Centers are the object of scheduled and, sometimes non-scheduled, visitation by a variety of persons. Local school people, university people, arts agency people, and parents are but a few of the individual and small group visitors to which Center staff respond regularly throughout the year.

Two other significant events occurred during the 1974-1975 school year. The first event was the second meeting, in October 1974, of the representatives of the Aesthetic Education Group. During that meeting a number of AEG representatives, including CEMREL staff, voiced a concern over a perceived lack of clarity as to the specific kinds of tasks Centers and Cooperating Schools were supposed to engage in.

In response to this concern, and in an effort to promote greater effort toward program planning and implementation in the Cooperating Schools, CEMREL wrote and distributed the "Categories of Implementation," a comprehensive checklist that detailed the major tasks and responsibilities that CEMREL believed the Centers and Cooperating Schools, and itself should accomplish during the duration of the project (See Appendix D).

Another significant event and one that was first indicated in the "Categories of Implementation" was the offering at each site of a CEMREL-planned and directed workshop focused on curriculum planning for the Cooperating Schools. Specifically, these curriculum workshops were intended to provide Cooperating Schools with input concerning curriculum planning and implementation in aesthetic education. Further, these workshops were intended to provide a setting in which such concerns could be productively addressed by staff from Cooperating Schools.

Other events during the past year included the third meeting of the AEG representatives in Denver in February. Major items on the agenda included a review of the "Categories of Implementation" and an effort by Center representatives to draft Center plans for the future, especially for spring 1975 to fall 1975.

The AELC's have worked formally with 23 Cooperating Schools representing 16 separate school districts. These elementary schools collectively are comprised of 23 principals, 457 classroom teachers, and 10,554 children. Each school had a core or cadre of teachers who had special responsibility for participating in Center training activities and for utilizing AEP instructional materials in their classrooms. There were 194 core teachers, and they had instructional responsibility for 5,820 children of kindergarten through eighth grade levels. These core teachers and, in some instances, children were the recipients of a variety of one-time and recurring training activities noted elsewhere in this report. Training took place at the Center, mainly in workshop sessions, and in the schools. The in-school activities included workshop or group sessions as well as individualized consultation and demonstration on the part of Center staff.

CEMREL's ten elementary instructional units, provided by CEMREL, comprised the most frequently used training materials for the Cooperating Schools, whether the training was directed by CEMREL staff or by Center staff. Training topics such as photography, filmmaking, puppetry, jewelry, and creative dramatics completed the content for training.*

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*The test version of the first Teacher Education package developed by CEMREL was used in some training sessions, though its use did not extend to all Cooperating Schools.

Questionnaire data indicates that the CEMREL instructional units were extensively used by core teachers at all grade levels during the start-up year, with usage ranging from 60% to 85% of the core teachers for the respective units (item #4).

4.*+ For each of the following sets of materials, check (✓) the box that would best characterize its usage in your classroom for 1974-75. Also place a checkmark in the last column if you plan to use the package next year.

	Did not use	Used only part of the package	Used the package as an incidental learning activity	Used the entire package as part of a larger program in Aesthetic Education	Used the package in connection with a subject such as language arts (abbreviate the subject in the blank)	Package was taught to my children by an arts specialist	Check this column if you plan to use the package next year	
Creating Word Pictures	28	19	9	16	28	1	43	(59)
Constructing Dramatic Plot	34	15	4	9	18	6	30	(45)
Creating Characterization	27	15	6	10	29	11	39	(54)
Meter (Rhythm/Meter)	34	10	6	7	8	8	16	(22)
Relating Sound and Movement	29	11	7	11	13	9	27	(38)
Shape Relationships	15	4	16	14	6	42	25	(29)
Shapes and Patterns	24	22	9	20	14	11	41	(54)
Shapes	23	14	7	24	20	11	42	(54)
Examining Point of View	31	13	7	15	12	4	29	(42)
Tone Color	40	5	4	11	10	5	28	(46)

*Sub-items are not mutually exclusive so percentages across all sub-items were total to more than 100.

+ - first and last columns are % of 122; parentheses is % of respondent using materials rather than total (122) sending back questionnaire.

- the middle five columns are based on number of respondents who used packages to one extent or another.

Interview and questionnaire data suggest that approximately half of the teachers used **the units for the** first time because, in part, they "looked interesting." Many teachers expressed the feeling that the first usage was often prompted by a concern for trying out the materials in their own classroom before making permanent judgements about the materials and their applicability. On one hand such an approach might seem unwise, since it was not uncommon for a package to be taught at three or more grade levels within the same school. On the other hand, such extensive initial usage afforded a high percentage of teachers with an experiential basis for making future plans concerning package sequencing among and within grade levels. In this project as in many others it seems clear that teachers are most comfortable when making curriculum decisions that are firmly grounded in personal experience. Simply reading teachers' guides and perusing materials is not enough for most teachers apparently. They want to actually try out the materials. In that sense, and as the high initial usage suggests, serious and productive curriculum planning by teachers can only come during or after personal classroom experience with the materials, not before. In a real sense then, the start-up year was a time for extensive personal experience and testing in the classroom of the instructional units.

Although schools were informed as to grade levels recommended for each package, they were free to use packages where they wished. The questionnaire responses concerning planning for next year (item #4) support the hypothesis that initial usage was perhaps relatively indescriminant, prompted by a desire for personal experience with many packages. Plans for the second year indicate a somewhat diminished total usage of all packages.

Part of the diminished usage could perhaps be explained by saying that teachers' second-year plans naturally reflected more selective usage than in the start-up year when teachers were intending to try as many packages as possible.

"Selective" here can be taken to mean not only a reduced number of packages, but more thorough usage of each package found appropriate. Another explanation may be unavailability of some packages in the second year that were available in the first through administrative decisions beyond the teachers' province. There is a need to collect further data in the second year to help determine the validity of these suggested explanations. With respect to the instructional context in which the aesthetic education materials were used by teachers, the questionnaire responses (items #5, 6, and 8) suggest that most teachers utilize aesthetic education materials in conjunction with the traditional academic areas or subjects of language arts, social studies, communicaton, mathematics or science.

5.* Through what kinds of scheduling have you used the sets of materials this year? (Check as many as appropriate.)

49 in a separate period set aside for aesthetic education

46 as a part of a related arts discipline (music, art, etc.)

64 as part of a related area which is considered a core or core-related subject (language arts, social studies, communication, mathematics or science)

10 in lieu of free time

2 other (specify)________________________________

6.* Indicate by checking which, if any, of the following supplementary activities have been undertaken in conjunction with the use of the program in your classroom? (Check all that apply)

51 integration with regular subject matter from arts-related courses.

56 Integration with regular subject matter from other academic areas

5 integration with other special commerical programs (e.g., Man: A Course of Study) Specify which program, if appropriate.

19 use of community resources (performing groups, speakers, etc.)

48 extension by additional activities designed by the teacher

*See footnote page 560.

8. In general, which of the following statements would best characterize your feelings about the use of Aesthetic Education materials? (Check one)

- 5 Aesthetic education materials are to be used as supplements to courses of study that are predominantly aesthetic in nature (art, music, etc.).
- 76 Aesthetic education materials are to be used as supplements to any course of study where appropriate links can be made.
- 4 Aesthetic education materials are to be used as a supplement to the language arts program
- 12 Aesthetic education is a course of study in itself.

(3% of teachers responding left this item blank.)

At the same time teachers' interest and enthusiasm for aesthetic education materials and school involvement in the program is at a high level according to teacher responses.

With respect to training, teachers responded most favorably to "study of the teacher's guide and experience," "workshops taught by person affiliated with CEMREL," and "in-service activities provided by the Aesthetic Education Learning Center" (item #11).

11.* What forms of in-service learning have been most important to you in developing your ability to successfully implement the materials. (Check those most important)

- 58 Study of the teacher's guide and experience
- 30 Workshops taught by a person within the school system.
- 26 Informal contact with other teachers.
- 51 Workshops taught by a person affiliated with CEMREL.
- 5 Other contact with district level personnel.
- 45 Inservice activities provided by the Aesthetic Education Learning Center.
- 3 Other (specify)______________________________

*See footnote page 560.

12.* What forms of support would be most appropriate to help you in strengthening your program in aesthetic education? (Check those most important)

42 A handbook for curriculum development in aesthetic education.

13 The offering of aesthetic education courses at a local university.

64 Additional in-service training programs for teachers.

11 Other (specify)________________________________

Additional "in-service training programs" were felt to be the most needed kinds of support in strengthening their schools' programs in aesthetic education (item #12).

*See footnote page 560.

Progress Towards Self-Sefficiency

The establishment of the AEG was not undertaken by CEMREL as a temporary, short-term effort to bring about changes. Rather, CEMREL wanted to initiate a change effort which could eventually become self-sustaining, not dependent upon CEMREL for material or technical support. In addition it was hoped that structures for change would be self-correcting, in order to identify and meet an array of needs and new situations in working toward its goals concerning aesthetic education.

> The first year of operation of Centers is looked upon as a "shake-down cruise" with each Center working out its own operational strategies. CEMREL will assist when necessary. It is hoped that by the second year the agencies themselves will carry out the program alone and that programming elements will be self-supporting. The Center would also be able in the second year to train its own key personnel for operation of various programs for the future. It is hoped that by the third year the Center will be operating as part of the agency's regular program and will be a permanent fixture in the total education of teachers in that region. (Rosenblatt, et. al. 1974.)

At least three conditions can be considered as evidence of Centers' progress toward self-sufficiency: (a) When the local staff and participating agencies are taking an increasingly active role in planning and implementing the Center's program(s); (b) When the Center is expanding, either by increasing its program or by offering its current program to a larger target group; and (c) When the local sponsoring agency(ies) is assuming an increasing share of the financial economic support of the Center.

Evidence is impressive concerning increasing local involvement in planning and implementing Center programs. Although a portion of each Center's program has been planned and implemented under the advice and assistance of CEMREL staff, most elements of Center's programs have been directly conceived and implemented by the Centers. The following are some of the locally-conceived and implemented activities, reflecting the degree of initiative demonstrated by Centers and Cooperating Schools in doing their own programming:

(a) A Cooperating School has designated one classroom as the space to which teachers can take an entire class for the purpose of utilizing the centrally-located aesthetic materials. In addition to being equipped with instructional materials for aesthetic education the room has been redecorated and re-equipped with furniture to make it "something special" for aesthetic education experiences. A lowered ceiling, four semi-circular modules, and brightly painted wooden desks transform the conventional classroom into a brighter and richer physical environment. Teachers alternate useage of the room by means of a sign-up sheet in the faculty room.

(b) One Center has provided one of its Cooperating Schools with a person, on a part-time basis trained in value clarification and interpersonal communication. The person worked with eight teachers and the building principal over several weeks, helping them clarify their views toward schooling and aesthetic education. Greater clarity of their views and better focus on aesthetic goals were felt to be the result of the dialogue that was undertaken.

(c) A Center conducted two workshops on aesthetic education for docents and teachers. These workshops, with attendance of 100 and 77 respectively, marked the first wide scale cooperation among the participating agencies in the area. Though outside consultants were used, the workshops were planned and directed by Center staff.

(d) A Center, in conjunction with one of its sponsoring agencies, planned and conducted an intensive two-week summer course in aesthetic education for area teachers and administrators. The university-accredited course focused directly on the goals and instructional strategies of aesthetic education. Such a course was not previously available in the area. The course was so well received that it was conducted in the second summer also.

(e) Two university-based Centers have placed pre-service teachers in the Cooperating Schools for part of their clinical training. Such an arrangement has provided the potential for several benefits. The arrangement can provide more direct liaison between the schools and the Center. It can provide a rich clinical setting for the pre-service teacher. At the same time the pre-service teacher can serve as a change agent in the school. In one case 12 pre-service teachers spent 6 weeks in the summer in a Cooperating School in an intensive training experience with the CEMREL instructional units. These persons planned for how they might use the materials in the same school in the following semester, as student teachers.

(f) One Center has utilized artists-in-residence as change agents within its Cooperating Schools. Each school was assigned a trained artist who spent approximately 50 days in the school throughout the year. These artists served the schools and the Center in a number of ways, including working directly with children, with teachers, and with parents.

(g) A number of Centers have worked directly with parent/teacher groups, in planning and implementing a variety of aesthetic education oriented all-school activities. Among these were general orientations, dramatic presentations, and other arts-related events.

(h) One Center provided a participatory exhibit at an area art museum. The exhibit highlighted "spaces and structure" by use of the Space Place along with structures designed by museum staff and consultants. The exhibit, allowed children and adults to design, manipulate, and experience their physical environment. 7,629 adults and children experienced the exhibit over its 6-month duration.*

Expansion of Center's programs can also be viewed as an indicator of progress toward self-sufficiency when the impetus and support for expansion comes from the participating agencies. In interviews with the CEMREL evaluator in May 1975, each of the principals from the twenty-three Cooperating Schools indicated that their school would continue at the same level of involvement or greater for the 1975-1976 academic year. In many instances the predictions of maintainance and expansion of effort by Cooperating Schools were based on schools' plans for the following year and based on schools' progress toward carrying out such expansion of effort.

Brief accounts of schools' expansion are illustrative:

(a) One Cooperating School began its participation in the project by letting six teachers from a staff of twenty, volunteer to attend a training workshop and use the CEMREL instructional materials in their classrooms. These teachers, representing each grade level, took on the task of getting other teachers interested at the respective grade levels. The core teachers felt that their informal attempts to get other teachers involved fell short of their expectations, that the instructional units were not getting wide enough useage in the school.

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*Appendix C lists the full range of activities conducted by each Center.

The core teachers then decided to try a new strategy, having each core teacher target just one other teacher to encourage and work with. This new strategy was felt to be effective, yet some teachers felt a bit uneasy in their role as individual change agents, feeling that they were imposing on other teachers. As a result of teachers' uneasiness with the above strategy, the core teachers and the principal implemented still another strategy. This involved the use of a centrally-located room for aesthetic education. A fixed schedule for all teachers and their classes was instituted. In that way each teacher had a designated time to use the aesthetic education room and instructional materials.

By May 1975 the Cooperating School had expanded its aesthetic education involvement significantly. Participation by teachers increased from six teachers initially, 30% of the staff, to about 95% staff involvement. During the year the school staff made a concerted effort to enhance the aesthetic quality of the school environment, including the faculty room and the classroom that was designated and equipped as a special environment for aesthetic education. In addition the school staff, with the close support of central office staff, had undertaken efforts to bring their program to the attention of the other area schools and to the community.

(b) A school district-based Center has worked extensively this past year with fifteen elementary schools in the sponsoring district even though only five of the schools were formally designated as Cooperating Schools. The work included at least two days of training at the Center for each teacher, for whom substitutes were hired by the school district in order to provide teacher release time. During the year two full-time aesthetic education resource persons were hired, bringing the Center staff up to three full-time persons supported by the school district budget. The Center staff was not only able to provide special training sessions for teachers and children, they also spent a large amount of time in the schools where they were able to work with teachers, principals and children on an individualized basis.

Though the plans for the future remain contingent on the general economic condition of the school district, they include the maintainance of training support for the original fifteen schools and expansion of service of other elementary schools in the district. The Center intends to continue an accredited summer course for teachers, while attempting to establish other aesthetic courses within its affiliated university.

(c) Another school district-based Center has initiated plans to expand its program through its Cooperating Schools while maintaining the services offered through the Center. The strategy for expansion called for each of the three Cooperating Schools to identify two other elementary schools in the district for the purpose of initiating new programs or supporting current programs in aesthetic education. The original cooperating Schools, with their cadre of trained teachers and administrators, became mini-centers and serve a change agent role in their own right.

(d) Another Center is working closely with the central administration of one school district in which a Cooperating School is located. The school district personnel have expressed a keen interest in the work being done in the Cooperating School in the area of aesthetic education. If the efforts of the Cooperating School are viewed as worthwhile and successful, the central administration plans to use the school as a model for other of its elementary schools.

(e) A university-based Center plans to maintain the Center's relationship to the university's Core program for pre-service teachers, while expanding the services provided to the Cooperating Schools. A key means of expanding the program in the Cooperating Schools will be the assignment of pre-service teachers to the Cooperating Schools for practice teaching and other clinical experience.

The AEG model placed considerable importance on Centers' ability to become self-sustaining. An important dimension concerns progress toward financial self-sufficiency. The kind of economic self-sufficiency indicated in the AEG model leaves considerable leeway for how a Center can acquire the financial resources needed to exist and to carry out its programs. The concern for self-sufficiency in the model was that Centers would not simply become temporary agencies, only able to operate for a year or two before disappearing. Further, CEMREL did not consider it desirable or possible for Centers to exist indefinitely on the support of CEMREL.

All Centers have made some progress toward economic self-sufficiency, though there is considerable variance in the extent and kind of economic aupport. It should be noted first that each of the agencies that sponsor a Center has made some sort of economic investment in the operation of its Center.

In all instances the local investment included the salaries of Center Coordinator and other staff, though the staffing arrangements varied from Center to Center. With one exception, the Center Coordinators were previously employed by the sponsoring agencies, whether being on a university faculty, being a school district staff person, being in a state department of education, or being an employee of some other educational agency. In those cases the sponsoring agencies chose not to hire outside persons as Coordinators; instead, they designated a person within their agencies to serve as Coordinator.

Those persons' responsibilities as Center Coordinators were, in at least four cases, added to other responsibilities. In two of the cases explicit provisions were made for releasing the Coordinators from part of their previous responsibilities. For example, a university-based Center made provision for one half released time for the faculty person serving as Coordinator and one half released time for another faculty member assisting in the coordination. In addition, the university provided a one half time graduate assistant.

In only one Center was the Coordinator's responsibility solely to the operation of the Center. In that school district-based Center, the school district financed a full-time Coordinator and two full-time assistants. In another Center the salary of the Coordinator was shared by two of the sponsoring agencies, with at least one half of the Coordinator's time allocated directly to the operation of the Center.

The above description of staffing arrangements is somewhat misleading in one respect. Even when Coordinators had major job responsibilities outside the formal structure of the Center, the major thrust of their work was closely related to aesthetic education and to the work of the Center. For example, one Coordinator had administrative responsibility for three art-centered alternative school operated within his school district. Another Coordinator was director of a school district-based arts in education project that involved the participation of forty-one elementary and secondary schools. Another Coordinator had state-wide responsibility for aesthetic education in-service training. Another Coordinator served as faculty member of a university staff that was implementing a pre-service Core program that entailed close co-operation and integration of instruction of the arts and curriculum and instruction faculties. Still another Coordinator was deeply involved with pre- and in-service training in the arts through creative dramatics programs at a local university, in schools, and with children. So all Coordinators had the potential to combine the operation of their Centers with other involvements.

In addition to investments in staffing, the sponsoring agencies made investments in the way of providing facilities for the Centers. Though the facilities varied from Center to Center--including classroom space in an elementary school, choice rooms in universities, a refurbished elementary school that had been vacated, choice space in a school district's staff development academy, and a K-3 arts center alternative school--they all represented a substantial commitment of space by the sponsoring agencies. The existance of the Centers in such facilities as indicated above probably increases their prospects for some degree of permanence.

Sponsoring agencies have also made an investment in the Centers by providing other kinds of financial support. Resource materials, local travel expenses for Center staff, printing and dissemination of information, consultants, supplies, and maintenance were the major expenditures in that respect.

The outlook for the coming year is optimistic. All Centers will continue at a level equal to or higher than the first year.* The two school district-based Centers appear to be well on their way to complete local support. One has received approval of a district-supported budget for the current year for a full-time staff of five and for operating costs for work with at least nine Cooperating Schools. In addition the administration has endorsed a four-year plan for Center operation. The other Center will continue to have school district funding for its three full time staff and for supplies and other operating costs, though the level of support is contingent on the overall economic picture for the school district at this date.

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*One issue that stands out at this time concerns the financial relationship between the Centers and their Cooperating Schools when the Center is not formally part of the same school system as its Cooperating School. It is not clear who or what agency will pay for the services provided the Cooperating Schools by the Center. Will a university-based Center, for example, be willing to provide the services free of charge? That has typically been the case in the first year, with a couple of exceptions where tuition was paid for university credit or when a local school district contracts for an artist-in-residence through a Center. Will Centers in the future provide services on some sort of fee basis, requiring Cooperating Schools to pay part or all expenses for services rendered?

Emergent Issues

In the previous sections we presented the model for the AEG network and a summary of the past year's events and accomplishments. As any model, this is an abstraction; it prescribes and anticipates broad outlines in individual conduct and social behavior. The model itself is unitary, but because it is basically an idea and because it has been applied to the realities of seven different locales, we expect there to be important differences in the ways it has been worked out in practice. To say it differently, the model has, in effect, seven "operational definitions"--definitions which are both overlapping and discrete.

We use the notion "operational definition" with one disclaimer. For although a model may be intended to influence institutions, programs, processes, and other patterns or systems of social behavior, the ultimate factor in change is change in individual lives--that is, change in modes of interpreting and acting toward self and the external world. Patterns of social behavior are the collective acts of individuals, and changes in social patterns result from aggregated changes in patterns of individual behavior. Once social change is viewed in this perspective, it is natural to speak as well of introducing new personal experiences and affecting the quality of individual lives over time.

We present the following analysis as an examination of the attempt to change people and patterns of behavior in light of a rather complex idea positing goals in aesthetic education and strategies or opportunities to realize them. We will focus on people of various professional backgrounds and personal histories as they have interpreted and re-interpreted the idea of the model in implementing it in practice. We will look at major problems that have arisen because of local conditions and contingencies not specifically envisioned in the statement of the model. We will assess the current state of development in the AEG network and prospects for the future.

It is easy to slip back and forth between such terms as "goals," "instrumental provisions," "objectives," and "formal characteristics" to the point of ambiguity. To avoid this problem let us back up for a moment to the purpose of the change effort we have been describing. The ultimate goal is enhancement of children's aesthetic sensibilities through formal education. In order to reach this goal we believe it is necessary to bring about change in teacher education, where "teacher education" is taken in a broad sense to mean any deliberate attempt to increase the professional expertise of teachers. Substantively the effort consists of a "cooperative effort among schools, teacher education institutions, arts organizations, artists, community service organizations, state departments of education, and others who are concerned with aesthetic education." Specific objectives have been set for the various institutions cooperating in the AEG network. Moreover, a certain strategy is to govern the conduct of activities within the network--a strategy whose characteristics are these:

(a) Participants should understand the major goals and procedures and should be willing to work toward their implementation.

(b) Local sites should operate autonomously toward accomplishing major goals, capitalizing on their uniqueness.

(c) Participants at various levels, should communicate and share ideas freely while providing mutual support for innovative efforts in aesthetic education.

We shall begin our analysis of the implementation of the AEG network through the perspective afforded by each of the formal characteristics and continue by looking at other emerging issues.

Page numbers 576 - 579 have been omitted through error.

Emergent Issue: Understanding the Goals and Procedures

In initiating the AEG model CEMREL believed that it was important for participants responsible for planning and carrying out the work of the AELC's to understand and support the major goals of the model. Second, CEMREL hoped the participants understood and supported the procedures by which the goals were to be attained, namely, the AEG model with its AELC's, Cooperating Schools and other associated agencies.

In order to bring about that understanding and support, the first 2 day meeting of AEG representatives in February 1974, was devoted to a description and review (both oral and written) of the AEG model and the goals to which it was addressed. Participants were asked by CEMREL staff for frank commentary on the model. No major objection was voiced nor changes suggested, in either the goals or procedures.

The AEG model required coordinated implementation efforts of automomous agencies, CEMREL, each AELC (which in turn may be an inter-organizational structure), and the Cooperating Schools formally attached to the respective AELC's. This multi-level, multi-agency arrangement is reflected in the Memoranda of Understanding signed by the key participating agencies, CEMREL, the AELC's (their sponsoring agencies), and the Cooperating Schools. The contractual terms were spelled out in two separate Memoranda of Understanding. A two party Memorandum of Understanding was signed by each AELC (or the sponsoring agency) and CEMREL. CEMREL was directly responsible for communicating with the seven AELC sites and formalizing the agreement.

A three party Memorandum spelled out the contractual terms between the Cooperating Schools, their respective AELC's, and CEMREL. The respective AELC personnel had major responsibility for selecting and spelling out terms of agreement between the Cooperating Schools, the AELC and CEMREL.

Thus, the explanation of the goals and procedures of the AEG Model, initially at least, went directly from CEMREL to AELC representatives usually the coordinator and one otherperson). The information was transmitted in face to face discussion (at the first AEG Meeting) and through documents (primarily through A Model for Implementation of Aesthetic Education, "Memorandum of Understanding" between AELC and CEMREL).

The AELC representatives in turn had to relay the information to the Cooperating Schools (through face to face discussion primarily, with the Memorandum of Understanding and an invitational letter from CEMREL being the only writeen explanation of the AEG Model).

It became clear in October 1974 that AELC staff and persons in the Cooperating School shared an uncertainty about what their exact responsibilities and roles were supposed to be with respect to the AEG model. Discussion at the AEG Meeting in Oakland in October, 1974, highlighted this uncertainty when AELC representatives and CEMREL were discussing the plans for working with Cooperating Schools during the year. The discussion centered on the question of how much and in what specific direction the Centers should press the Cooperating Schools toward developing and articulating Aesthetic Education programs. A CEMREL staff member voiced his concern about the prior discussion with AELC staff and with Cooperating School persons saying:

> "I didn't hear anyone saying they were going to implement a broadly-based program in aesthetic education. We must let these schools know, without really laying it on, what our expectations are for one, two, or five years from now" (10/4/74).

The comments of the AELC representatives reflected their own uncertainty concerning the "expectations" for the Cooperating Schools and secondarily reflected some of the uncertainties felt by teachers in the Cooperating Schools. The following potpouri of comments by AEG representatives indicates the range of uncertainties and conceptions of the "expectations."

Person A: "Many teachers simply feel they are supposed to use a package" (AEP instructional unit).

Person B: "Some of the people came away from the workshops (package familiarization workshop conducted by CEMREL staff) feeling like aesthetic education was a set of materials" (several other persons voice their agreement).

Person C: "Do we know what we expect of them?" (the Cooperating Schools)

CEMREL Person: "I think by the end of today we must come up with some realistic expectations of where we want the Cooperating Schools to be at the end of the year; in terms of developing a total program."

Person D: "What were the specifications in addition to the Memo of Understanding?"

Person E: "I went to the principals and six teachers from each Cooperating School and interpreted the Memo of Understanding."

Person F: "I felt the teachers (from the Cooperating Schools) were afraid we were asking for a deeper commitment than originally asked for" (by asking questions about developing a total program.)

Person D: "We find it is best to let enthused teachers be the change agents. It is important to let it happen naturally but our hidden agenda is to keep pushing aesthetic education."

Person F: (in response to the above comment): "What do you expect of 'it'? We have to be able to say what 'it' is, what the 'things' are. If we don't know, how will the teachers know?"

Person G: "Some teachers probably never saw the terms of the agreement." (Memo of Understanding).

A consequence of the discussion, as reflected in the above comments, was that CEMREL, on the recommendation of AELC representatives, agreed to write out in some detail the "expectations" CEMREL had for the Cooperating Schools concerning their responsibilities for planning and implementing a program in aesthetic education.

These "expectations" were embodied in the "Categories of Implementation" (See Appendix D), which listed the specific roles and responsibilities of Cooperating Schools, AELC's, and CEMREL. The "Categories" were later sent, to each AELC Coordinator and to each Cooperating School principal, with the explanation that the "Categories" could clarify responsibilities and could be used as an implementation checklist.

It should be noted that the fall 1974 site visits (by Dane Manis of CEMREL) generally confirmed the conditions noted above. Though peoples' perceptions of the AEG and their involvement in it differed from one school to another and within particular schools, the perceptions frequently reflected an incomplete or inaccurate understanding of the AEG project and their role within it. In some instances teachers had an image that CEMREL was a sort of publisher and was primarily interested in getting teachers reactions to the materials. Many teachers expressed the feeling that they were not really clear about the project beyond their obligation to utilize the AEP instructional units.

Cooperating School principals generally had a more complete understanding of their school's obligations in the project than did their teachers, yet even the principals' perceptions of their schools' role did not seem to include the task of implementing a "broadly-based program in aesthetic education" on the scale discussed at the October AEG meeting. In that respect the Memorandum of Understanding to which the Cooperating Schools agreed specified that the Cooperating Schools should "use the learning packages developed by CEMREL's Aesthetic Education Program as part of its educational program" and to "assist the laboratory in identifying and documenting alternative curricula in aesthetic education." (Sec. III A) A principal's interpretation of that statement could and apparently did, vary considerably.

The October 1974 AEG Meeting had significant ramifications for the general AEG Model, as will be discussed below in this report, and for the plan of operation for the next year. This shift in the plan of operation included two additions, the writing and distribution of the "Categories of Implementation" and the addition of two major curriculum workshops for all Cooperating Schools. These workshops were to be planned and directed by CEMREL staff. Both the workshops and the "Categories" were felt to be needed in promoting greater understanding of the project's overall goals and specific procedures while providing more direct assistance and guidance to Cooperating Schools in planning and implementing aesthetic education programs.

Emergent Issue: Autonomy

In the January, 1974 working paper the character and extent of CEMREL's intervention is defined as follows:

> --- the laboratory's main thrust is in the development of products, whether these be ideas or materials. Thus, the laboratory did not expect that it could or should carry on massive teacher education without the assistance of existing agencies and institutions now engaged in the process. Though CEMREL could not take on the responsibility of massive structural and conceptual change of teacher education programs on a nationwide basis, the laboratory was willing to accept the responsibility for familiarizing these other organizations with the information needed to implement such programs.

This statement affirms the advisability of working within established institutions. But it does not fully capture the Lab's desire to ensure a significant degree of local autonomy and diversity from Center to Center. This attitude is more clearly expressed in a statement from the progress report of summer, 1975:

> A key assumption of the AEG model is that each Group Associate should be free to develop and support aesthetic education approach(es) and teacher education approach(es) that are best suited for its particular situation, even though the approach(es) may differ from the approach(es) of other Group Associates. (p. 3)

Because the Centers were to be relatively autonomous, they necessarily faced a choice in focusing their attention and energies to bring about the general goal of teacher education. The model for implementation, in effect, prescribed three major domains for change in teacher education, each domain roughly corresponding to a major type of institution involved in the network. These domains may be defined as in-school teaching and learning, teacher training (a narrower term than teacher education referring particularly to university programs in pre- or in-service training), and utilization of community resources and the services of professional artists.

"Autonomy" implies reliance on one's own capabilities and judgment when confronted with a choice. The Centers were to be able to make choices in light of resources and expertise available, about the degree of its effort in each of the domains for change prescribed by the model. One is struck by certain configurations in the summaries of populations served (pp. 18-39) and in the net impact of activities conducted by the Centers (Appendix C). ("Net Impact" is used here to refer to duration of an activity as multiplied by a total of individuals involved to reach an estimate of "person-hours" of involvement.) Centers may be compared overall with each other or "against itself" in terms of breakdowns of populations served or net impact of activities.

Across Centers one sees that three reached virtually no parents, while three others involved more than four hundred parents each. Five Centers reached under 3000 teachers and administrators each, while two reached over 8000 each. Within each Center there are noticeable differences among the numbers of each population served.

One Center served a population of teachers/administrators more than ten times as large as either the population of students and the population of "others" served. Only two Centers served populations of teachers/administrators less than combined total of the other three categories. One Center, in fact, served a population of teachers/administrators better than nine times as large as the other three categories combined.

Comparisons can be made in terms of net impact as well. For example, one Center served a population of parents fifteen times as large as another Center, but generated a total of person-hours in activities only twice as long as that Center. In another comparison, two Centers served virtually the number of students, but one generated approximately twice as many person-hours with its activities than the other.

These examples are intended to illustrate that Centers individually and as they together constitute the AEG group, allocate their resources of time, effort, and expertise differentially according to type of population served and net impact of activities conducted.

The Centers have, effect, set their objectives differently in accord with the principle of autonomy intended for the AEG network and in view of local opportunities balanced against political, economic, and institutional constraints. We are not at this point attempting to define trends or relations among trends more precisely. We will, however, consider several implications of these data and others in our discussion of the current state of development of teacher education through the AEG (see last section of this report). We can briefly summarize the table as indicating that none of the Centers neglected their Cooperating School teacher/administrators and children. And all but two devoted the overwhelming proportion of activities to these populations.

Moreover, the Coordinators are from different professional backgrounds and have different institutional affiliations. This is to say that Coordinators naturally are most familiar with different kinds of institutions. The coordinators identify different populations as being their principal clientele: these range among individual schools; school districts; university departments and programs; broad political-governmental constituencies; and artistic communities. In no way should this discussion be taken to imply that some institutions or clientele were necessarily slighted or unduly favored. The Centers have tended to utilize their perceived competencies in what ever ways may be felt consistent with goals described by the model for implementation. By comparison with each other, the Centers have taken different courses.

To be logically consistent in the principle of autonomy, the Centers must respect the uniqueness and integrity of other agencies. The Centers are faced with the same dilemma in the relationship to cooperating and affiliated agencies that CEMREL is faced with in its relationship with the Centers.

Characteristic needs may be attributed to each type of Group Associate. For schools, the following concerns are typical: the role of aesthetic education in the established curriculum; inservice training in the use of instructional materials and release time; administrative allocation or re-allocation of funds and other material resources; and the attitude of school personnel and community patrons not directly involved in the change effort.

In universities one encounters issues surrounding the place of aesthetic education within the intellectual traditions shaping undergraduate professional education; the importance of scholarship (i.e., to publish and in other ways to contribute publicly to the growth of formal knowledge), and frequently, the delicate nature of working relations with schools. In departments of education, one faces political, administrative, and contractual or funding obligations, and a scale of work that presents great logistical problems. Professional arts organizations, too, must heed funding obligations, and, more particularly, the skills, talents, and artistic commitments of its members.

Individual organizations and institutions of the sorts involved in the AEG network typically represent vested interests. Each likely possesses a unique history and even, in the broadest sense, a somewhat unique language. The ability to communicate as well as attitudes formed in past experiences may make external relations with other institutions problematic. One Center Coordinator has made a point of success in bringing members of different professional organizations to the Center as a "neutral turf" -- this meeting being a necessary first step to any productive interagency cooperation.

> ...the thing that I think has been one of the most exciting things has been the fact that the arts institutions have tended to use the Center as a unifying force or a place where they can kind of come together on sort of neutral ground to check out what each one is doing and maybe coordinate a little better the kinds of things they're doing.

Even when individuals can overcome these difficulties, however, expenditure of time and money remains an institutional decision and committment of agencies not primarily identified with the Center is likely to be gained gradually.

One coordinator put it best perhaps when, though speaking of inservice training of teachers, he aptly described how the effort to change individuals within established and significantly autonomous institutions must proceed.

> The level of faith is the foundation on which you build this kind of program -- the ability for a few people to know you, to trust you, to trust what you represent in terms of a program (I don't mean this in a strictly personal sense.) They must understand what it's about, and that you deliver.....What can happen is that you get some people excited and while we're out getting others excited, they flounder. And that floundering brings frustration, and frustration brings eventual fatigue and disinterest....I spent my first six months just meeting and developing personal contact. Now a phone call can do a lot to re-kindle interest and sustain it.

As Center's efforts have progressed toward establishing permanent working relationships through meeting and resolving problems encountered -- and thereby clarifying, too, their own conception of mission -- CEMREL has also modified its role in the local implementation. Notes from the October, 1974 AEG general meeting show that the question of "reasonable expectations" for the Cooperating Schools was in the minds of Center Coordinators. Following this meeting, CEMREL issued a clarification of the original Memorandum of Understanding which included the Categories of Implementation. (See Appendix D). In both amount and detail of discussion, this document is evidence of the Lab's growing interest in the specific problems of staff training for cooperating school personnel and of implementing aesthetic education curricula at the classroom level. A letter from Bernard Rosenblatt to a Center Coordinator further illustrates the growing involvement of CEMREL in shaping Center plans while emphasizing the principle of local autonomy and diversity.

> The beginning of the New Year is a good time to clarify thoughts and directions .... We have attempted to delineate those major responsibilities we all have in order to accomplish the committments we've made by December, 1975. These responsibilities have been derived from the "Agreements" we've all signed .... We will not be doing exactly the same thing at the same time .... Your plans should be designed to fit your particular setting .... You will notice in the attached plan that the stated activities and documents are all geared to assist you in developing and carrying out your plan. It is our intention that during January and February, as part of the "goal clarification" workshops, to go over this document and answer any questions, concerns, etc. that you may have.

However, the Lab was clearly still interested in abiding by the principle of local autonomy. An interval memorandum of December 1974 provided a clarification of the Memorandum of Understanding by presenting plans organized into "levels" of implementation. This memorandum was replaced by the more detailed categories of Implementation without being circulated within the AEG network. Of note, is the dropping of the terminology of "levels" from the later document, indicating the Lab's desire to avoid too prescriptive a language.

In summary, CEMREL has moved to a more direct and substantive role in the Centers' affairs, while attempting to remain non-prescriptive. The Lab has deliberately assigned its highest priority to implementation of day-in-and-day-out curricula in aesthetic education for the schools.

Emergent Issue: Communication

As envisioned in the original model, AEG members were to become "sources of information to their fellow group members, act collectively as a decision-making body, and participate in the production of a communication means." In the next several pages we will trace the development of forms of communication within the AEG network and a related concern, material support among group members.

With respect to national communication, there have been three general meetings (with a fourth scheduled for late October, 1975) and publication of two issues of the national newsletter, Our Bag. In addition, there have been letters, phone calls, and "occasional memos."

Centers have largely relied on existing means of communication, formal and informal, for ongoing dissemination of information. Two Centers are intimately tied to school district staff development/training centers and gain publicity through them. Another utilizes a statewide monthly newsletter. Virtually all the Centers have space in the newsletters of schools [illegible]tricts, universities, other agencies and organizations. In addition, brochures, flyers, and media "spots" are occassionally used, particularly in connection with special events. Several journal articles are close to publication.

These methods of disseminating information, relying on formal and informal contact across a potentially broad audience have had unexpected and positive results. One Coordinator has described the results in this way:

> Apparently our little dissemination flyers about it (the Center) and the publicity we've had in the paper has gotten us a lot of calls from people who want to know what there is there that they can use, people for instance in art education, music education or -- they'll call and say what do you have that we can use, what is there that we can find out from your Center --

In addition, word of mouth produces "quite a few calls from various segments of the community which you might not expect would (be interested)." These initial inquiries can then be followed up with various sorts of personal contact. Personal contact is an important dimension of "open communication" noted in the model. In that sense, communication is seen as interaction or two-way flow of ideas, attitudes and interests. The method of personal contact, though, must resolve certain tough problems. One is the problem of time and individual effort required for interaction on a national or regional scale. A majority of Coordinators have stated that they need a different technology from writing and publication. Greater use of the telephone and video/audio tape recordings was suggested as was the vague "some other way to tell others about our activities and to hear from them about theirs."

Two other problems specific to Center Coordinators should be noted. One involves coordinators providing psychological support and "inspiration" to one another. While it is true that, in general they do not feel nearly so isolated after comparing notes with their counterparts, Center Coordinators appear most interested in the Centers with which they appear to have most in common. One Coordinator has stated it as follows:

> ...I don't really anticipate being able to use a great deal of, say, the Long Island model, but I could be wrong and I'm willing to go and see. I would anticipate being able to use the other models that are more intimately connected with the school systems, probably because we share more common concerns and ways of operating.

A second problem grows out of the Center functioning as a sort of demonstration site where people, from whatever background and holding whatever notions about aesthetic education, can see first hand and perhaps try out materials, resources, and products. Whenever visitors come to the Center someone must be available at least to talk with them. The Center staff has to provide supervision and a schedule for activities, or insure that these are provided. Finally, follow-up contact for visitors from far away (and halfway across the state can be considered "far away") is a difficult task.

Our conclusion is that the evidence collected generally indicates that opportunistic communication relying on personal contact can be effective for disseminating the idea of aesthetic education and information that the Center is to serve that idea in whatever way it can. This method may even be necessary for initially stimulating persons to think about the meaning of aesthetic education for their own work and, relatedly, how resources of the Center may be applied to this task. Virtually all the Center Coordinators found that they were surprised by some of the people who learned about their Center and were interested enough to seek further information. But, on balance, the Coordinators found it more productive to make initial contacts. One Coordinator describes a "strategy" for working with professional and community agencies and the Cooperating Schools.

> I don't know if we have any strategy. I don't know what a strategy would be. All I do is keep in close touch with them and try to see what their needs are and reinforce their needs. So far we have been--I have initiated a lot of things--offered let's say, things that can be done to reinforce. . . I think a lot of times you have to be the one that calls up and says, look we have this available, can you see it working into the framework of what you're doing and then let the principal or the teacher decide or suggest alternative possibilities.

Another Coordinator describes the building of working relations as a broken-line process at first, when a mutual identity for the Center and its clientele is still forming.

> We haven't explored fully how it might be used, say, by people in history, sociology, poli-sci, but that's something I'm going

> to get around campus and ask people and maybe have a couple of workshops in it, inviting interested instructors to come and look at it as an aesthetic place, an aesthetic space place if you like. How would you do something with this in a political science course or -- I don't know, it's what we have to find out ... (The Center could become a magnet where a lot of things are fit into it. That's another way I see it. It's being used in that way, but in a haphazard way, it hasn't really come to full function...

Two caveats must be added in fairness. Communications among a Center and its clientele will very likely need to become more routinized as continuing programs are planned and developed by those who use the Center. This has been the experience of those who have originated recurrent inservice training. We cannot deny, however, that while communication becomes less opportunistic it should become similarly less reliant on personal contact. As the quote from p. 72 above indicates personal contact is very likely critical to continued support of clientele, both in renewing commitment and in substantive guidance for the work undertaken. Second, it is true that because of social system mechanisms it is much easier to communicate (i.e. interact) with persons in certain types of institutions. To be specific, it is very uncertain that opportunistic communication will alone be effective with Core Teachers on a continuing basis or that it would be a viable method for school people to institute for themselves unless, as one Coordinator put it there could be a phone in every room. But even if such were the case the question of time available to make use of a phone naturally arises.

Teaching has typically been a "lonely profession." Barriers inherent in the school institution are tangible. The individualization of the "work" setting, most notably the self-contained classroom; inflexible scheduling of free-time; suspicion over possible demands in after-school time; and the constant press of events and responsibilities. When interaction can occur, it is generally at times primarily devoted to eating, relaxation, or preparation for class. These sorts of barriers become more formidable as one attempts to cross school boundries, and indeed still more formidable as one attempts to cross school district lines. At these levels administrative and political interests may conflict. But problems of "territoriality" are found within schools as well. Teachers may **attempt** to preserve special areas of competence or interest or even hoard materials and resources. A very revealing statistic are the results on item 11 of the questionnaire sent to Co-operating teachers (See Page 563.) Only about 5% of the teachers responding indicated that "contact with district-level personnel" has been useful to them in implementing aesthetic education materials. Only about 26% indicated that "informal contact with other teachers" has been useful, and only about 30% indicated "workshops taught by a person within the school system" were useful. This is strong evidence that, at least initially, direction and perhaps impetus for change, must come from without the institutional structure of the school--in effect, to bypass traditional barriers to interaction within the institution.

All this leads to another feature of the implementation model--the opinion leader. Interview data from Coordinators and teachers alike have emphasized how important the influence of school principals is. In addition to the principals, however, the Center and CEMREL staffs have taken effective leadership roles. There have been site visits to schools and classrooms. Training workshops or other sessions which have brought together people from several schools have been conducted by or under the auspices of the

Centers or CEMREL. Again, results from item 11 of the teacher questionnaire are supporting. About 40% of the teachers responding indicated that study of the teachers guide and experience "has been useful to them in implementing aesthetic education materials." About 45% indicated that "inservice activities provided by AELC" have been useful, and about 52% indicated that "workshops taught by a person affiliated with CEMREL" have been useful.

Nearly all Center Coordinators have asserted that recurrent inservice training--directed **especially** to use of CEMREL packages and their integration into arts education and the rest of the elementary school curriculum--is necessary. Such training must be planned systematically and scheduled in advance.

For the current level of ongoing classroom teaching in aesthetic education to have come about, it was necessary for Center and CEMREL staff to have acted deliberately as "opinion leaders" in the items of the implementation model. This combined effort has had by far the greatest effect of teachers in their own estimation.

In light of results from item 12* of this questionnaire it is likely that in-service training will continue to be necessary though perhaps more supplementary to a teacher's handbook which the Lab is now producing. Most importantly, the effects of direct intervention by AELC's and CEMREL, as it has brought teachers into contact with aesthetic education materials, have been overwhelmingly positive for teachers (item 10, Teachers Questionnaire) and apparently for parents, school district personnel, and fellow teachers as well (item 9, Teachers Questionnaire). See next page.

*See page 564.

9. For each of the following groups of people, check the box which best describes their attitude towards the aesthetic education program in your school.

	Very Positive	Positive	Indifferent	Negative	Very Negative
parents (30% of teachers responding left item blank.)	7	43	19	1	0
teachers within the program (6% of teachers responding left item blank.)	27	59	6	2	0
other classroom teachers (18% of teachers responding left item blank.)	7	47	25	3	0
school building administration (10% of teachers responding left item blank.)	39	50	1	0	0
district level administration (31% of teachers responding left item blank.)	17	41	10	1	0
arts-related specialist teachers (e.g., music teachers, art teachers) (26% of teachers responding left item blank.)	31	39	4	0	0
students (6% of teachers responding left item blank.	34	57	2	0	1

10. What general effect has your experience with the specific materials of the Aesthetic Education Program had on your belief in the concept of the arts as part of the education of each child?

43 My enthusiasm has always been high and remains so.

49 My experience with the materials has increased my enthusiasm.

2 My enthusiasm has decreased to some degree.

(6% of teachers responding left item blank.)

Emergent Issue: Money, Distance, and Diversity: Issues in Inter-School Cooperation

The goals of inter-school cooperation and sharing of ideas fell short of realization in a number of instances during the start-up year. Centers were able to generate some inter-school activities, primarily in the form of multi-school workshops; however, much of the observation and interview data indicate that such inter-school efforts are difficult to initiate and sustain. The difficulties seem to be compounded when the schools are from separate districts. The data indicate that principals and teachers in one school rarely communicate with staff from other Cooperating Schools except when such events are initiated by the Center, as in the formal openings and multi-school workshops during the year.

Examples of what is possible however, are shown when one Cooperating School developed an assembly program involving many students and "toured" it to a Cooperating School in another district; still another Cooperating School brought a program of ethnic dances to the other Cooperating Schools in the region.

The reasons for the lack of communication probably stem from several sources. Three factors stand out in the data as inhibiting inter-school communication: (a) lack of money for providing release time for teachers; (b) prohibitive travel distances between schools; (c) dissimilarity of school situations.

The difficulty of freeing teachers from classroom responsibilities for the purpose of attending training sessions and observing other teachers and other school programs was a common problem for all Centers. Without money for releasing teachers during the day or paying teachers to attend weekend sessions, Centers were largely limited to working with teachers after hours, when fatigue was a factor, or during the school day on an individual, "catch as catch can" basis. Only one Center was able to carry out a multi-school program where release time was provided for teachers on an extensive level. The reason seems all too clear from the interview data; time is money with respect to freeing teachers from classroom duties. Someone has to replace the teachers during their absence from the classroom, and replacements cost money. Few school systems have a surplus of money, meaning that the Center must compete with other local needs for the scarce funds.

Travel distance between schools can be equally limiting. When twenty minutes to an hour must be spent in transit between schools, many teachers and administrators feel that the visitation effort is too much of a hassle for a short period of time in a school. For example, if a teacher has one hour of free time during the day, it benefits her little to visit a school that is twenty minutes away, meaning that she might get to spend only ten to fifteen minutes in the building after the driving. The same problem occurs when one school staff must travel for an hour to make an after-school meeting at another school. If the schools dismiss at the same time, one or the other of the school staff must be inconvenienced by the one hour delay.

Dissimilarity of schools can also be a barrier to effective inter-school communication and sharing of ideas. Staff from an inner-city school in a highly urban area may have little to talk about with a staff from a rural school that seemingly has few, if any, of the same experiences and problems. Interview data suggest that some teachers from highly dissimilar schools were somewhat uncomfortable in meeting and tended to believe that there was little applicability of information to their own school settings. The point being stressed here is not that such schools, in fact, have little in common; rather that teachers may believe that they have little in common and thus question the value of inter-school communication.

Emergent Issue: Coordinator Overload

It has been noted above in this report that all Center Coordinators except one have assumed their Coordinator responsibilities on top of other responsibilities, which were in all cases rather extensive to begin with.* The job of Center Coordinator, at least in the start-up year, appears to have been a very demanding one. The following items represent but a few of the tasks Coordinators were called upon to perform throughout the year:

(a) Serve as administrative head of the Center.

(b) Carry out various kinds of liaison and trouble shooting activities with the participating agencies.**

(c) Serve as a spokesperson and advocate for the Center.

(d) Plan and implement a variety of kinds of orientation and training activities. In many cases, the Coordinators not only had to be the planners and trainers, they had to recruit the participants.

(e) Respond to written and personal inquiries about the nature of the Center.

(f) Act as "tour guide" for visitors to the Center.

(g) Attend a variety of planning meetings.

(h) Do the writing and reporting required by the AEG and CEMREL.

Such an array of duties by themselves would seem to place great demands on a Coordinator's time and energy. Taken along with other duties, these would seem to constitute an overload on the Coordinators.

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*It should be noted that the Center that was the exception had taken on a task of working with fifteen elementary schools rather than three.

**In the area of inter-personal and inter-agency relationship the Coordinators compiled an outstanding record. This observer was impressed with how universally positive was the feeling by school personnel toward Coordinators.

SUMMARY: PRESPECTS FOR CONTINUING DEVELOPMENT OF TEACHER EDUCATION THROUGH THE AEG NETWORK

In this section we shall pull together some aspects of previous discussions to assess the current state of the AEG Network as an ongoing structure for teacher education and to suggest directions in which this structure may be developed. We shall do this by considering the start-up year in a different manner than the body of the report, i.e. we will use the objectives established for the AEG as a focus for the discussion. We will then look at the Establishement of a Foundation for Teacher Education. Finally, we will briefly delineate what has been accomplished in teacher education this start-up year.

Objective I. To provide an aesthetically pleasing environment for teachers and students for aesthetic learning."*

This objective is difficult to assess since the phrase "aesthetically pleasing" implies a value judgement and the phrase "aesthetic learning" has no clear meaning. It is possible to say that Centers were, in fact, established. They each included the equipment, furniture, and instructional materials supplied by CEMREL as noted above in this report. Whether aesthetic or not, there is evidence that the equipment and furniture were not without problems in their utilizations. The following comments by Center Coordinators suggest the range of opinions about the utility and desirability of the various items:

Tape Deck Unit

Coordinator A: We [Center Staff] are the only ones who use it. We have to borrow tapes....We have no instructions for how to record, so we use it for background music....It's being used nowhere near its potential.

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*The discussion of this objective is more lengthy than for the remaining objectives because this issue has not been extensively included elsewhere.

Coordinator B: It took us about six months to get it working since it came without any wire.

Coordinator C: We just use it for background music.

Coordinator D: We just got it two weeks ago [May 1975]. We still have not received the manual....There has been nothing done with it other than fidgeting with it to make sure it will run.

Coordinator E: It is used primarily by groups.

Coordinator F: The least thing used is the tape deck....until a month ago we didn't have speakers for it. They got ripped off before they got here. We used it maybe the last few weeks.... Teachers use it a lot with slide presentations because of the good quality sound. ..I think just not too many people knew how to operate it.

Light Table

Coordinator F: That's been ripped off before we got it.

Coordinator E: The light table has been fairly minimally used, too, primarily for picture sorting.

Coordinator D: We never got it....when is it coming?

Coordinator C: Yes, we use it. Kids sort slides and do tracings.

Coordinator B: We used it as demonstration space for slides and so on.

Coordinator A: It would be a great display area for a piece of sculpture.

Projector Stand

Coordinator A: They're terrible. They let the equipment fall to the floor and break. That has happened....It just tilts too far....So we use an old fashioned one which is not very aesthetic, but at least won't drop anything.

Coordinator C: Haven't used those yet. There are so many other flat surfaces around that can hold projectors.

Coordinator D: Never received them.

Coordinator E: Yes, we've used them often and we've had a lot of trouble with them. They fall over and the machines fall over often, so we pack books underneath to keep them from falling.

Coordinator F: You've got to keep tightening the screws. That platform gets so loose and floppy.

Stools and Tables

Coordinator F: We've had trouble, table tops loosening up and breaking or screws coming out. The tables are just too low (for adults). The cushions could be higher....People get tired of sitting there without any back support on the cushions. On the other hand, the furniture gives you flexibility to do other things you can't do with standard school type furniture.

Coordinator E: Stools are marvelous. I couldn't have too many stools. We use those in building projects, in making sounds....in color arrangements. We use them for everything under the sun. They're used and they're just great.

The tables, of course, have structural problems. They fell apart easily to begin with.

Coordinator D: Stools are great. People have really enjoyed those. They're used by everybody from graduate students to undergraduates to pre schoolers. They're easy to move. They've maintained themselves well.

The tables are a complete disaster. They're not very functional to begin with....They're fun to look at but they're not very usable and construction--whoever did the architectural construction should get an "F" in architectural construction... The one function we found for it was displays, but in terms of utilization with children, absolutely zilch, and that includes adults, simply because adults don't like them because they're too low.*

Coordinator C: Stools and tables? Yes, we use those every day.

Coordinator B: We get a lot of particularly good use out of them, especially the stools.

Coordinator A: The stools are fine. We do have some teachers who have disc problems, or elderly or overweight, or men who are tall and lanky and find they are uncomfortable after a while. For two full days or so, we drag out folding chairs.

The tables are not well constructed. Some teachers say they would love to have them (tables) in their classrooms.

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*This was a complaint often expressed by adult users of the Centers. The observer overheard one teacher ask whether she would have to sit on the floor again if she went to the Center, that her back was just recovering from the last visit.

Modules and Storage Cabinets

Coordinator A: The divider modules are great. We walk all over them, rock them, and everything else.

With square boxes and round storage cabinets, we resorted to putting stuff in cupboards.

Coordinator B: They (divider modules) are great for developing learning centers. The storage cabinets are awkward and the doors aren't functioning too well.

Coordinator C: We use those constantly...They set a kind of tone to the whole physical place and they provide a little privacy and separation of one activity from one another. They give an identification, I think, to the place.

Coordinator D: Good and bad. The storage cabinets, the doors stick on them all the time....The divider modules, they're good to work with with beginning people, but as people become a little bit more sophisticated in terms of the kinds of things they want to do with the various arts areas, they become a drag. They get in the way. And the problem is that they are so heavy and cumbersome, you can't get them out of the way quickly.... Working with younger kids, as long as they're (the modules) are down on the ground, teachers feel secure with them. As soon as they're up, teachers don't like them. They're scared to death some kid's going to pull it over....We've had one fall, fortunately nobody's gotten hurt....But I know they're nervous about them.

Coordinator E: The storage cabinets are great. We put locks on ours because we had some petty thieving. When we're not here we try to keep them locked. The divider things are excellent, of course, they're not portable or they're "hard portable."

Coordinator F: There is one drawback. If you have a film or you're lecturing and have a group of 30 or more, you literally have to take the furniture and modules and line them up outside becasue they present a visual varrier for a group of, say, 15 people.... They're not easy to move around....The door casters have caused problems.

Space Place

Coordinator F: The space has had extensive use, very unstructured, though. We started to structure some of the activities half way through after they (children) really did some damage to it because it was a pretty open activity, just do your own thing.

Coordinator E: Space Place, excellent, yes. We have, I suppose, used that as much as anything. We have used it for every possible extension in that room that can be made. Everybody uses it to create new environments. And we've used it for drama classes to make improvised stage sets. It is the most used, and we're wearing it out fast.

Coordinator D: That has the same kind of deminsion as the furniture. When people first come there it is intriguing and different. As they become more sophisticated in the kinds of experiences teachers are giving them, it becomes less useful.

Coordinator B: It is functioning rather well.

Coordinator A: No one uses it (now). We used it with a fourth grade class for publicity for the grand opening. We used it last summer with the adults and children. We've not gotten any Carousel projectors of our own, so we can't use it to project our own texture. We have ideas for experimentations, but we would welcome suggestions....It bothers us that it is just sitting there.

The above comments by Center Coordinators indicate shared experience and opinions, in the case of the projector stand, for example, at the same time opinions and experiences have differed concerning other elements of the physical setting. At best, the comments suggest a need for certain items to be redesigned, and a need for further training or exchange of utilization ideas with respect to the physical setting.

Objective 2. To provide a facility and materials which are flexible enough so that various in-service and pre-service teacher education programs in aesthetic education can be designed and implemented.

The range of in-service and pre-service activities conducted in each Center is a testimonial to the flexibility of the facility. With few exceptions, however, the facility is still used primarily as a background environment. The physical components have not been used extensively as stimuli for setting up problem-solving experiences for teachers. The redesign of classroom environments is a direct application of aesthetic education and should be included as part of the education of teachers.

Two sets of instructional materials designed specifically for teacher education have been supplied to the Centers. Two additional sets will be completed soon and sent. It was anticipated that after the initial testing of the materials that their use would be continued and they would serve as major resources for developing comprehensive curricula for teacher education. These curricula might be for a mini-course, sequence of workshops, semester's course, etc. There is little evidence that this kind of recurrent utilization has taken place. This may be due to the myriad other involvements of Center personnel but it remains an important issue for 1975-76.

Objective 3. To provide a population and space for the testing of instructional materials in aesthetic education.

The Centers have conducted the testing of the teacher education materials in various contexts. This range has included use of the materials, within a two week summer workshop, weekend courses specifically set up to test the package, and within ongoing university courses. A problem which exists relates to the need for setting aside sufficient time to thoroughly carry out all of evaluation procedures and complete teaching of the set of materials; i.e. scheduling. The nature of the developmental process does not allow for a guaranteed delivery date to the Center, therefore, teaching personnel have difficulty in planning out the term's work to include the testing at a particular time. It is hoped after the initial testing experience and, therefore, clearer understanding of what is involved, it will be easier to anticipate time process. The initial experiences have also provided insights for CEMREL's evaluation into the types of instrumentation and documentation most feasible.

Objective 4. To generate over a two-year period various methods for utilizing and extending use of CEMREL's aesthetic education instructional materials.

A great deal of effort and consideration have been given to the achievement of this objective. Data from the Teacher Questionnaire (see Figure 4) indicates that, for teachers responding, an extremely high percentage have tried one or more of the packages. Response to the materials as a vehicle for aesthetic education was highly favorable. All Centers, using CEMREL persons and resources where necessary, have conducted several in-service workshops, including ones for package familiarization, use of alternative strategies and supplementary materials, and goals clarification. The majority of Centers have instituted ongoing program in-service training and teacher assistance.

Certain problems remain to be fully resolved. Foremost among these is the issue of integrating aesthetic education into the overall elementary school curriculum. There will be a significant drop in package use next year as teachers have more clearly identified appropriate methods and an appropriate scope for aesthetic education in their classrooms. If these existing approaches are to develop and if aesthetic education is to come to more classrooms, the Centers must be easily accessible to teachers and alert to identify and respond to teachers' concerns on a systematic basis. In-service training and handbook/curriculum guides must be made available. Centers will probably need to stimulate teachers to generate alternative curricular approaches in aesthetic education. The logistical problems of this sort of working relationship with teachers already involved, not to mention involving other teachers, are formidable. To meet these demands, Centers will probably have to encourage schools themselves to arrange for teachers and administrators within schools and across schools to share concerns, ideas, and resources. One area in which the Centers may be especially helpful is in working out financial and administrative support, notably in hiring substitutes, gaining release time, and establishing systems for sharing materials and personnel.

Objective 5. To generate new plans for teacher education in aesthetic education.

There has been some progress made toward this objective; e.g. a two week course has developed at one Center, a pre-service course has been revised, a six week in-service course has been offered at another Center. In the reality of time, most efforts at the Center were focused on establishing space, people relationships, getting Cooperating Schools teachers started with the elementary student packages, and beginning work on curricula design for the schools. In retrospect it would have been reasonable to expect these kinds of activities and the amount of time they would require. It would seem that the Centers were not ready to systematically generate new and comprehensive plans. This objective should receive prime emphasis in 1975-76.

Objective 6. To facilitate cooperation among schools, teacher education programs, arts organizations, artists, community service organizations, state departments of education, and others who are concerned with aesthetic education.

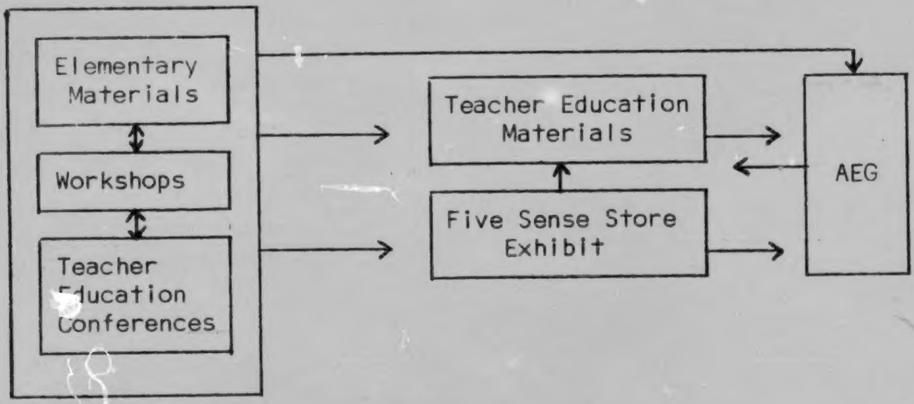
This has been perhaps the most difficult of the objectives to realize, for only one of the Centers came into existence having ready-made contacts with the sorts of agencies designed to be complementary members of the AEG Network. The level of time and energy needed for in-service and pre-service training of teachers was much greater than anticipated, so personnel resources left over for bringing about involvement of other agencies were necessarily less than anticipated.

Another factor mitigating against interagency cooperation is the traditional lack of normal contact among the diverse institutions planned to be involved. Merely bringing people from community service agency, a performing arts organization, a professional educational association and/or school districts or state departments in a "neutral turf" setting to begin talking is a rudimentary but absolutely necessary accomplishment. To have professional artists or other community persons get into the schools often means having these people and school people consider possibilities they have really never thought about before. And for anything to happen, logistics must be worked out. The Centers have, on balance, only reached the rudiments in the area of interagency cooperation.

It may be well to redefine the Centers' role more precisely and more narrowly as a clearinghouse providing information and an occassional personal intercession to put agencies into contact with one another and with schools without being responsible for institutionalizing relations or [illegible] ongoing programs. In several cases, too, the resources that may normally be found in separate institutions are located within one institution, such as the several departments of a university or a school district's arts resource team, with which a Center already works closely. In such cases, it may not be advisable or desirable to seek the involvement of external agencies.

Establishment of a Foundation for Teacher Education

To begin, we can summarize major historical antecedents of the teacher education emphasis given the AEG.



In order to achieve some perspective as to where the Aesthetic Education Group fits on a continuum from the development of elementary materials to the development of approaches to teacher education for aesthetic education it may be useful to review some of the antecedents of the Aesthetic Education Group. The initial establishment of a foundation for teacher education began with the early considerations which lead to the development of the Aesthetic Education Program itself. The ultimate decision to begin the Program with the development of materials for the classroom teacher through a collaboration of teachers, artists, scholars, etc. provided the philosophy which has been inbued in the teacher education effort. One result of this cooperative procedure was the development of teacher's guides. There was a consideration from the beginning that the teacher's guides, if carefully constructed with the advise and reflection of classroom teachers, could provide the beginnings of an in-service program for teachers. In other words, the classroom teacher, upon examining a particular set of materials could by reading the teacher's guide effectively introduce a given number of concepts into their classroom. However, it became apparent that while classroom teachers could effectively do this, certain other factors, mitigated against total implementation of a program in aesthetic education. It became recognized that the materials provided content but an in-service workshop would be necessary for many teachers to provide confidence. So that from these kinds of concerns, a series of workshops were developed that initially were to provide familiarization with the elementary materials and to provide the needed confidence for the teachers.

During those workshops, along with the experiences during the testing cycles of the elementary materials themselves, the program became cognizant of many of the attitudes, skills, processes, and behaviors which require attendance in order to develop the classroom teacher to the maximum potential in dealing with aesthetic education. At the same time, conferences conducted with teacher education institutions revealed the needs and complexities of changing pre-service programs in the universities. It also revealed the necessity of the needed interaction between what happens in a pre-service program and an in-service program and the interaction of both of those with the ultimate users of this new knowledge, the schools. So that in the formative years of establishing a foundation for teacher education it was the interaction of elementary materials, the workshops, and the teacher education conferences that ultimately led to a decision to develop instructional materials for teacher education which could be used in in-service as well as pre-service settings. The activities, behaviors, and attitudes embodied in those materials would be derived from the experiences mentioned earlier.

In addition, the program had designed the Five Sense Store Traveling Exhibition, and it was this involvement with designing small learning centers within a total learning environment, that gave way to an idea of combining the efforts of the development of teacher and student materials, workshops, conferences and an aesthetic education environment into the planned mechanism for delivering some ideas for teacher education, the AEG. Therefore, the Aesthetic Education Group became a culmination of previous experiences with teacher education, and an experiment to provide a mechanism through which alternative approaches of teacher education could be identified. These approaches then, will grow from the experiences of the Aesthetic Education Program in the development of resources and workshops, the design of elementary curricula and the experiences of the AEG. Approaches for teacher education will grow from the content of aesthetic education and the needs of the classroom teacher to deliver that content. Thus, a program for teacher education will be built on a foundation of teacher needs in relation to content.

It is anticipated then, that in the next year we will be able to build on the content and known needs of classroom teachers and the variety of curricular designs which have been derived in part from the Cooperating School teachers. It is anticipated that the AEG will try out and document some ideas which can provide for comprehensive approaches to teacher education for aesthetic education; whether these approaches be one course in a semester, a year's program, a short institute, a series of mini-courses, or sequences of workshops within in-service programs. We will want to look at this potential variety in a realistic manner so that ultimate conclusions and recommendations will be based on content, teacher needs, as well as the constraints of time, economics, political, and social pressures existing in the schools and colleges and universities.

In the last year, a foundation has been established for development of a structure for teacher education. This foundation consists of the beginnings of a curriculum program at the classroom level, experience with a variety of pre-service and in-service training programs, burgeoning involvement of community and arts agencies in the schools, and precedents for increased interaction among school people both within and across schools and even, within limits, across school districts.

Continuation of classroom programs in aesthetic education seems virtually certain. The great majority of entries within the categories "staff training" and "curriculum" in the Categories of Implementation have been accomplished by virtually all the Centers. A variety of in-service and pre-service training ranging from workshops to academic courses have been tried and can now be regularly scheduled and institutionalized. Results from the Aesthetic Education Questionnaire for teachers show very positive responses overall for teachers, other school personnel, parents, and students (cf. **Item** 8, p. **563 and Item** 9, p. 598). A significant proportion of teachers who have used packages will use them again next year (See item 4, p. 560).

It is important to note the great amount of progress made in terms of logistics, breaking down traditional barriers of communication, gaining self-confidence, and sorting out the hard questions of policy and planning that must be decided.

A Coordinator summarizes one Centers' experience with involving teachers actively and hopes for the future:

> ...unfortunately we really overspent and now if we don't enlarge we will know what people we would like to have back, ones that are active, of course...we saw it leading into working with children the next go-round and actively discussing problems, successes, solutions, and so on maybe...things that they had found that augmented and supplemented the packages and ways to correlate and so on but the money just isn't there so this has to be done sort of as we run from school to school right now other than getting the coordinating teachers from the schools together we really can't get the great core that we would have liked to have return and exchange ideas.

From the schools' viewpoint:

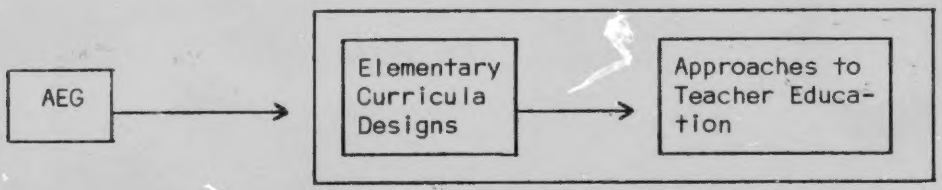
> ...our school days are so structured...that many of the schools don't get out until 3:45 and nobody wants to discuss anything, I mean it's all a principal can do to call a faculty meeting let alone get a group of teachers together and so I suppose it's pie in the sky but I would hope that maybe we could do it say at lunch hour, try and get core teachers together and just have a brief discussion of what's going on every once in a while.

A Cooperating School teacher from another area of the country relates lessons learned in the first year:

> ...I think most of us feel that we definitely should choose certain children next year. It will be systematic. We will be setting up schedules to go on....[we] haven't exactly found how to use [the package] yet. I'm sure we are just kind of feeling our way around to get up a schedule where it is very systematic.

Future Development

Acknowledging the present state of the network, prospects for next year and succeeding years can be considered, along two lines--the substance and form of future efforts. Clearly, as the network expands the need for familiarization with instructional materials and teaching strategies as well as clarification of intermediate goals will be required. For ongoing programs, teacher responses indicate that a major substantive issue will be integration of aesthetic education into the standard elementary school program. Although several Centers have made great inroads, utilization of district arts specialists, community resources, and professional artists will need to be put on a programatic basis. The lab will continue to take a direct hand in identifying and compiling alternative methods and curricula in aesthetic education and teacher education. These substantive directions can be represented as in the diagram below.



The form of continued efforts can be speculated upon as well. For those areas where classroom programs are initiated for the first time, we can expect continued need for in-service training through workships and curriculum guides (including an expanded handbook suggesting alternative possibilities for teaching). An expanded handbook/curriculum guide is likely to continue to be useful, and in-service training as well. (See item 12, **page** 564.) We would hope, however, that school people themselves can generate more activities for themselves, using Center people as consultants and for liaison with community and arts agencies. Many school people have expressed the desire for extended involvement with colleagues from their own and other schools.

A principal from a Cooperating School in the west expresses his hopes for next year:

> I personally would like to see two or three schools close to us become involved with us in an in-service here where our teachers would then service them and check out the materials they need to use in their development.

As a general goal, this principal expressed the need for "more dialogue about aesthetic education." A teacher from a Cooperating School in the midwest hopes to capitalize on the initial involvement and growing interest of fellow teachers:

> We did have a very slow start....there was one teacher with a negative attitude...part of it [too] was our media center did not get organized and everything was very confused at the beginning of the year; but as the year has progressed, teachers seem to be more interested, more involved, the time schedule has begun to loosen up, you know rush, rush, rush, at the beginning of the year and [now] teachers are having more time to sit down and work with it and I really look for next year for things to improve.

In-service training has the chance to become largely the practice of school people, with Centers not only providing a place and resources, but providing assistance as consultants and, perhaps, as lobbyists for funds, release time, and other administrative needs.

Ultimately, a question which must be answered is, "What has been accomplished in teacher education?" Throughout this report we have alluded to a wide range of activities which directly relate to this crucial issue. However, it is appropriate to conclude this report by summarizing the major accomplishments in this area.

Prior to this project workshops for familiarizing users of the packages developed for the elementary classroom were conducted on request in various parts of the country. A few courses were offered in aesthetic education at a few universities. A relatively few scholars, professors, and teachers were addressing themselves to a comprehensive investigation of teacher education for aesthetic education. The work that this report reflicts demonstrates that CEMREL with the AEG has begun to address the complexities of the problem. As one could expect, the "start-up year" was marked by experimentation and trials; however, the following has been accomplished:

1. Seven regional teacher education Centers intensively serving twenty-three Cooperating Schools now exist and an eighth Center is preparing to begin operation.
2. A cadre of educators--teacher trainers, classroom teachers, curriculum supervisors, and administrators--have participated in an ongoing teacher education program which has delineated goals and philosophies of aesthetic education; provided familiarization with instructional resources; provided curriculum building experiences; and provided insights into utilization of community resources.
3. Classroom teachers in the Cooperating Schools have moved from experimenting with individual packages to investigating their relationship to various curricula areas and have begun to design curricula for their own teaching situations. This effort effects thousands of children.
4. New courses and adaptations of previous courses now exist for pre-service education.
5. Instructional resources designed specifically for teacher education have been developed and are being tested at the Centers. Indications are that these resources will be able to serve as a core for building teacher education curricula.
6. Multiple regional agencies have begun to cooperate in teacher education efforts.

7. A national dialogue has been stimulated not only among the Teacher Centers but also with various school systems and teacher education programs in other parts of the country; e.g. University of Wisconsin (River Falls), Webster College (St. Louis), SUNY (Albany), Northeast Missouri State University (Kirksville), Eastern Illinois University (Charleston), Western Illinois University (Macomb), Seattle University, Indiana State Department of Education, Illinois Department of Public Instruction, Birmingham (Alabama), and Prince William County (Virginia) to name only a few.
8. Publicity from the media, Our Bag, and the CEMREL Newsletter has generated hundreds of inquiries about the Centers, teacher education, and aesthetic education.

The AEG, tempered by reality, has accomplished its goals during this start-up year. It has established the viability of developing mission-oriented teacher centers.

APPENDIX A

AESTHETIC EDUCATION LEARNING CENTER

CEMREL, Inc.

MEMORANDUM OF UNDERSTANDING

This Agreement, made and entered in to this __________

day of ____________, 19 __________between

hereinafter called the Participant(s) and

CEMREL, Inc.

__________ __________ __________

3120 59th Street

St. Louis, Missouri 63139

hereinafter called the Laboratory.

The parties do hereby understand and agree as follows:

I. PURPOSE

The purpose of this Memorandum of Understanding is to enter into a cooperative agreement between the Participant(s) and the Laboratory to initiate and implement an Aesthetic Education Learning Center.

II. PERIOD OF PERFORMANCE

A. The period of performance of this Memorandum of Understanding will be from ____________________ through ____________________.

B. It is the intention of the Participant(s) and the Laboratory to participate in extension or renewal of this Memorandum of Understanding by mutual agreement. Such extensions or renewals are subject to availability of funds for the work of the activities and subject to agreement by the Participant(s) and the Laboratory that the prior performance of the parties has been satisfactory.

III. SCOPE OF WORK

A. During the period of performance the Participant(s) agree(s):

1. to designate and provide a suitable space as the Aesthetic Education Learning Center;
2. to designate a local person to coordinate the Center and to serve as a liaison with the Laboratory;
3. to implement a program of individual workshops utilizing the Center and provide staffing;
4. to assist the Laboratory in conducting Laboratory workshops;
5. to assist the Laboratory in installing the Center;
6. to use the learning packages developed by CEMREL's Aesthetic Education Program as part of its educational program;
7. to participate in the testing of learning packages developed by CEMREL for teacher education in aesthetic education,

8. to continue to develop a teacher education program in aesthetic education;

9. to assist the Laboratory in identifying and documenting alternative curricula in teacher education for aesthetic education;

10. to collect and forward to the Laboratory data needed to evaluate CEMREL Teacher Education Materials in the form of teacher questionnaires, student attitude surveys, demographic information, and other data mutually agreed upon by the parties. If other data will be necessary it would be mutually agreed upon during the course of this agreement.

11. to allow authorized observation of the activities of the Center;

12. to participate in periodic orientation sessions, workshops, and conferences as mutually agreed upon by the parties; and

13. to have teacher candidates use the CEMREL packages during their student teaching assignments.

B. During the period of performance the Laboratory agrees:

1. to design and install a model learning environment and resource center for aesthetic education;

2. to provide, for the Center, learning packages developed by the Aesthetic Education Program and other relevant materials;

3. to provide the training for the Center coordinator and related personnel;

4. to develop and test learning resources for teacher education in aesthetic education;

5. to designate a staff member to serve as liaison with the Participant(s) in implementing and maintaining the Center;

6. to identify and document alternative curricula in teacher education for aesthetic education;

7. to conduct periodic conferences at which various cooperating Centers could share ideas and discuss mutual concerns in the area of aesthetic education for teacher education;
8. to provide consultant services; and
9. to provide the Participant recognition and publicity as a CEMREL Aesthetic Education Learning Center.

IV. COPYRIGHT

The Laboratory's copyrights on any and all of its learning materials and documents are not assigned or relased by this agreement. Copyright on all additional instructional and/or training materials developed or revised in the course of this participation and as a result of the participation shall not be claimed by the Participant and may be claimed by the Laboratory.

V. AUTHORIZED USE

No distribution to any third party may be made of the materials, or any part thereof, during or after each period of performance by the Participant without the prior written approval of the Laboratory.

VI. NEWS RELEASES

The Participant shall provide the Laboratory with copies of news releases, items of public information and communications relating to the Center's operations or activities related to Center operations.

The parties hereto have executed this Memorandum of Understanding as dated on page one of this document.

CEMREL, Inc.

______________________________ ______________________________

Participant Laboratory

by____________________________ by____________________________

Stanley S. Madeja, Vice-President, CEMREL, Inc.
Director, Aesthetic Education Program

CEMREL, INC.

MEMORANDUM OF UNDERSTANDING

This Agreement, made and entered in to this __________

day of __________, 19 __________ between

____

Cooperating School

and

____

Aesthetic Education Learning Center

hereinafter called the Participant(s) and

CEMREL, Inc.

____________ ____________ ____________

3120 59th. Street

St. Louis, Missouri 63139

hereinafter called the Laboratory.

The parties do hereby understand and agree as follows:

I. PURPOSE

The purpose of this Memorandum of Understanding is to enter into a cooperative agreement between the Participant(s) and the Laboratory to initiate and implement a Cooperating School (C.S.) for Aesthetic Education.

II. PERIOD OF PERFORMANCE

A. The period of performance of this Memorandum of Understanding will be from ____________________ through November 30, 1975.

B. It is the intention of the Participant(s) and the Laboratory to Participate in extension or renewal of this Memorandum of Understanding by mutual agreement. Such extensions or renewals are subject to availability of funds for the work of the activities and subject to agreement by the Participant(s) and the Laboratory that the prior performance of the parties has been satisfactory.

III. SCOPE OF WORK

A. During the period of performance the Participants agree:

1. To designate a local person to coordinate the C.S. and to serve as a liaison with the Laboratory and with the A.E.L.C.;
2. To use the learning packages developed by CEMREL's Aesthetic Education Program as part of its educational program;
3. To follow the procedures outlined in the teachers' guides for the Aesthetic Education Program materials in order that the content and intent of the materials not be distorted;
4. To assist the Laboratory in identifying and documenting alternative curricular in Aesthetic Education;

5. To allow authorized observation of the teaching of Aesthetic Education Program materials;
6. To provide follow up, with the assistance of the AELC as necessary, to specified institutions who visit the C.S. and want to establish their own progrms in aesthetic education;
7. To participate in research studies conducted by the Laboratory; and
8. To participate in periodic workshops, orientation sessions, and conferences as mutually agreed upon by the parties.

B. During the period of performance the Laboratory agrees:

1. To loan the C.S., for a period of two(2) years, learning packages developed by the Aesthetic Education Program. Upon satisfactory completion of the project, the packages will become the property of the C.S.;
2. To provide the training for the C.S. coordinator and related personnel;
3. To designate a staff member to serve as liaison with the Participant(s) in implementing and maintaining the C.S.;
4. To identify and document mutually agreed upon curricula for Aesthetic Education;
5. To conduct periodic conferences at which various C.S. could share ideas and discuss mutual concerns in the area of Aesthetic Education;
6. To provide consultant services; and
7. To provide the Participant recognition and publicity as a CEMREL Aesthetic Education C.S.

IV. COPYRIGHT

The Laboratory's copyrights on any and all of its learning materials and documents are not assigned or released by this agreement. Copyright on all additional instructional and/or training materials developed or revised in the course of this participation and as a result of the participation shall not be claimed by the Participant and may be claimed by the Laboratory.

V. AUTHORIZED USE

No distribution to any other party may be made of the materials, or any part thereof, during or after each period of performance by the Participant without the prior written approval of the Laboratory.

VI. NEWS RELEASES

The Participant shall provide the Laboratory with copies of news releases, items of public information and communications relating to the site's operations or activities related to site operations.

The parties hereto have executed this Memorandum of Understanding as dated on page one of this document.

CEMREL, Inc.

Participant (Cooperating School)

by ______________________

Laboratory

by ______________________
Stanley S. Madeja, Vice-President
CEMREL, Inc.

Participant (Aesthetic Education Learning Center)

by ______________________

3/20/74

APPENDIX B

INVENTORY OF MATERIALS SUPPLIED EACH CENTER

Physical Environment

8	4' diameter circular divider modules
8	3' diameter circular divider modules
6	4' half circle tables
6	3' half circle tables
24	foam rubber seating units
1	light table
1	Recording/playback PA Module with tape deck, amplifiers, and speakers
2	4' diameter half cylindrical storage units
2	slide projector stands
1	Space Place (optional)

Student Packages

5 sets of 12 published packages to each Cooperating School - each set serving 6 students

4 sets of 12 published packages to Learning Centers - each serving 6 students

Total sets 19 - serving 480 students at any one time

Teacher Education Materials

Package Number 1 - 30 student sets

Package Number 2 - 30 student sets

Package Number 3 - Film only (How Does A Rainbow Feel?)

Our Bag - 1 and 2 to all Cooperating Schools and Centers in large quantities

Complete Aesthetic Education resource library of books, papers, studies published by Aesthetic Education Program - 1 set per Center.

APPENDIX C

ISU Center, Activities

Item 1 February 6, 1975

Formal opening of the Center

200 guests from the Cooperating Schools, the university, CEMREL and other educational related agencies.

Item 2 February 4-5, 1975

Central Orientation of Package Familiarization Workshop for teachers and administration from Cooperating Schools.

50 teachers and 5 administrators in attendance, 6 hours.

Item 3 June 10-July 26, 1974

12 pre-service teachers in pilot schools. Focus on AEP materials will be student-teachers this fall at the same school, 4 hours per day, 6 weeks.

August, 1974

John Goeldi used Teacher Education package #1 during a 2-week period of a summer elementary education curriculum course. 12 pre-service elementary education students, 10 hours.

Fall Semester, 1974

CORE 1 with Aesthetic Education focus, 216 pre-service students.

Item 6

Spring Semester, 1975

CORE 1, 216 pre-service students

Item 7

February 22, 1975

Music Education conference 15 in-service teachers in Center for Workshop all day, Teachers from Central Illinois Music Association, 6 hours.

Item 8

Center used by 64 3rd and 4th graders from Pershing School. Use of The Space Place, and work with selected packages throughout one day. Also tour of Theatre Department, 4 hours.

Item 9

April, 1975

Brief orientation session for 200 supervisors of student-teachers from the Association of Teacher Education, 1 hour.

Item 10

Center used by 30 pre-school children from Bloomington Pre-school Programs, 1 and one half hours.

Item 11

Spring, 1975

An ISCD visitors one day exhibit to the show the Center and materials, 30 public school curriculum supervisors attended, 1 hour.

Item 12

8-week summer course use of the Center in learning packages, 20 pre-service teachers, 60 hours

Item 13

Spring, 1975

Use of the Center as a learning environment by 60 students from the Metcalf Lab School, also four teachers involved, 4 hours

ITEM 14

Spring, 1975

Brief orientation session for 136 Central Illinois school superintendents, 1 hour.

Item 15

John Sharpham used the Center with theatre people, 15 pre-service students, 5 hours.

Item 16

Center used by 35 students in class in role development, 8 one hour meetings, class given in the university Fine Arts Department.

Item 17

8-week summer course in organization management, 27 students, 6 hours.

Item 18

2 8-week summer counseling courses, 75 students, 48 hours.

Jeffco Center Activities

Item 1

August 30, 1974

All-day workshops entitled "What Is Aesthetic Education?" for 20 teachers from the Cooperating Schools, 6 hours.

Item 2

September 24, 1974

Teacher in-service workshop for Cooperating Schools titled "Developing AELC Program Goals and Objectives" Examining of OUR BAG newsletter,20 teachers, 2 hours.

Item 3

October 10, 1974

Use of Center by 30 elementary students from Sun Valley School, 1 hour.

Item 4

October 15, 1974

In-service workshop for Cooperating School teachers, examinization of Point of View and Creating Characterization packages, 20 teachers, 2 hours.

Item 5

November 4, 1974

In-service workshop for Cooperating School teachers, 20 participants, 2 hours.

Item 6

November 25, 1974

In-service teacher workshop for Cooperating School teachers, 20 participants, 2 hours.

Item 7

March 6, 1975

Cooperating School teachers complete reports of each school's usage of AEP packages and draft plans for future use of packages, 20 teachers, 2 hours.

Item 8

April 3, 1975

Minimal day workshops for three Cooperating Schools, including observation at Little Elementary and Foothill Art Center. Planning for 75-76 school year, 20 teachers, 2 hours.

Item 9

January 9, 1975

In-service workshop for Cooperating School teachers, 20 teachers, 2 hours.

Item 10

January 10, 1975

In-service workshop for in-service teachers from Cooperating Schools, entitled "Implementing a TNT Workshop in Your School"

Item 11

May 8, 1975

Cooperating School teachers sharing critique and revise plans for next year. Each Cooperating School will identify 2 area schools to work with in the 1975-76 school year, 20 teachers, 2 hours.

Item 12

November 20, 1974

Mimimal day in-service workshop for CORE teachers, 8 teachers, 2 hours.

Item 13

September 26, 1974

Arts in Education workshop given in cooperation with the University of Northern Colorado. A credit course interdisciplinary arts and aesthetic education for Jefferson County teachers K-12. 53 teachers attended the course a total of 18 hours work.

Item 14

September 27, 1974

Teacher in-service workshop at the Denver Art Musuem entitled "Exploring Your Art Museum" 34 participants including 17 Jeffco teachers, 16 hours.

Item 15

October 24, 1974

Jewelry Workshop for selected secondary art teachers in Jefferson County.

Item 16

October 25, 1974

Grand Opening of the Center from 9:30 to 11:00 One class from Sun Valley Elementary and their teacher worked with the Point of View package from 1:00 to 2:30, One class from Earl Johnson Elementary and their teacher worked with Constructing Dramatic Plot, 333 teachers and administrators attended.

Item 17

October 26, 1974

Open-house for the Spaces Instruction Exhibit at the Denver Art Musuem

From the period October 1974 - March 1975 7,629 students and teachers from Jefferson County and Denver went through the exhibit.

Item 18

November 1-2, 1974

Workshop for 21 secondary Language Arts teachers from Jefferson County on 8mm filmmaking given. Workshop stresses filmmaking as an inter-disciplinary arts tool to complement language arts curriculum.

Item 19

January 7, 14, 21 and 28, 1975

Workshop entitled "Editing: A Way of Life" given for secondary Language Arts teachers from Jefferson County. Workshop emphasizes inter-disciplinary approaches 17 participants for total of 8 hours.

Item 20

Workshop for elementary teachers from Jefferson County Schools on the subject 8mm Filmmaking. Emphasis on filmmaking to complement social studies, science and language arts curriculum. 18 participants for 12 hours.

Item 21

Mid-February, 1975

Sandcastle workshop at Grand Lake entitled "Arts for the Special Child" 2 three-day workshops in arts activities for the special child, 84 teachers attended a total of 26 hours of instruction.

Memphis Center Activities

Item 1

Late October, 1974

Meeting with Junior League Steering Committee which serves as an advisory committee for the Center, 7 attending, 1 hour.

Item 2

October 21, 1974

Through remainder of 74-75 school year. Two days per week devoted to training target teachers (no more than two teachers released at one time from the school) in the use of AEP packages. Cooperating Schools received the initial focus 302 teachers, 12 hours each.

Item 3

November 1974 - Spring 1975

Follow-up visits to 15 target schools to assist teachers with materials and to encourage participation. Visits made by coordinator and two full-time assistants. One or more hours of in-school work for each of 302 target school teachers. Follow-up work also included the Liason workers principals and administrators.

Item 4

October 1974

Formal opening at an open-house at the Center. 120 in attendance including teachers, principals, other school administrators, community leaders, state department representatives, deans and professors at Memphis State University, CEMREL representatives, 2 hours.

Item 5

October 30, 1974

Orientation and planning meeting with selected Memphis elementary principals, 11 in attendance, 1 hour.

Item 6

January 24, 1975

One-day orientation into Aesthetic Education into the Center for Physical Education specialists from the selected 15 elementary schools. 15 in attendance, 6 hours.

Item 7

January 20, 1975

One substitute teacher in a class of 36 children from Memphis school district visited Center to use materials and explore the physical environment, 1 hour.

Item 8

January 20, 1975

Coordinator met with 2 members of the Memphis Art Council to stimulate further correlation of arts programs in use of performing arts groups in school programs, 1 hour.

Item 9

May 8, 1975

Art festival in a Cooperating School, 200 parents and other visitors, 2 hours.

Item 10

April and May, 1975

Docents visit Cooperating Schools, 4 docents, 15 visits.

Item 11

Meeting at Center with Rene Trapaga, principals and consultants in Cooperating Schools, 14 principals and consultants, 1 and one half hours.

Item 12

February 11, 1975

PE workshop for PE instructors from 15 target schools, 12 attending, 2 hours.

Item 13

March 24, 1975

Liason Teacher's meeting, 18 teachers attending, 2 hours.

Item 14

May 19, 1975

Liason Teacher's Meeting, 18 attending for 2 hours.

Item 15

March 6, 1975

Artists-in Residence performed for White Station, one hour.

Item 16

April 26, 1975

Two teachers, 60 children explored AELC and Space Place, 2hours.

Item 17

Four teachers and 120 children from a Cooperating School involved in the station with the storyteller, 2 hours.

Item 18

Three teachers 60 children and three parents saw a dance exhibition by a sixth grade group, 2 hours.

Item 19

March 26 - May 29, 1975

Approximately 28 Cooperating School teachers and their classes had presentation by professional artists.

Item 20

July 16 - 26, 1974

AELC/Memphis State University workshop entitled "Workshop in Aesthetic Education" three- credit course sponsored by MSU. Taught by Center coordinator and MSU curriculum instruction professor, 30 in-service elementary teachers in attendance, for 63 hours.

Item 21

October 17, 1974

An evening reunion the July 1974 workshop participants, 22 in attendance, 3 hours.

Item 22

November 25, 1974

AELC slide presentation discussion to a class at the Early Childhood Center AT MSU, one instructor and 6 pre-service teachers, one hour.

Item 23

November 8, 1974

2 educators from the American School in Guatamala visited the Center and examined the packages Word Pictures and Dramatic Plot and viewed the film "To Make New Again." They later observed a class at Peabody Elementary School, 2 hours.

Item 24

November 5, 1974

MSU Social Studies Methods class visited the Center and examined the materials and viewed "To Make New Again." 13 pre-service teachers, one hour.

Item 25

December 9, 1974

An instructor and 6 pre-service teachers from MSU class in Effective Education visited the Center and observed the class of a Cooperating School. 2 hours.

Item 26

March 1975

Junior League volunteers used Word Pictures materials and third and one half of fourth grades in one school, 130 children, 1 hour.

Item 27

March 22, 1975

Program session entitled "Aesthetic Education" given by the Coordinator and MSU faculty member at creative curriculum and innovative instruction conference at Memphis State University, 40 in attendance, 2hours.

Item 28

March 26, 1975

21 Kindergarten children experienced The Space Place and examined an art exhibit from the Memphis Academy of Art, one and one half hours.

Item 29

April 3, 1975

2 hour workshop for training in taking arts into the schools, seven docents in attendance.

Item 30

April 18, 1975

9 visitors from the Community Service Agency, 3 hours.

Item 31

April 22, 1975

A visit by 6 supervising teachers from MSU, one hour.

Item 32

April 23, 1975

Visit by MSU early childhood class, one instructor and ten pre-service teachers, one hour.

Item 33

May 3, 1975

Program session on Aesthetic Education, program session entitled: "Aesthetic Education" given in alliance for arts and education workshop, 6 teachers, 1 hour.

Item 34

May, 1975

Open-house demonstration for parents focusing on new materials at 2 schools involving 300 parents, 4 hours.

Item 35

May 21, 1975

MSU elementary social studies class visited the Center, 15 students, one hour.

Item 36

May 20, 1975

Arts supervisor from Knoxville visits,2 hours.

Item 37

April 8, 1975

Presentation discussion by 5 members of Memphis Symphony Group, 4 classes attending, 120 children, 4 teachers and 6 parents.

Item 38

April 8, 1975

Memphis Art Academy teacher and staff working with children, 15 fifth graders

Item 39

April 9, 1975

Students experiencing and center and space place, 2 classes of involving 60 children and 2 teachers

Item 40

April 15

Excerpts from Raisin in the Sun, by the Memphis Pastiche Group, 4 classes, 120 children, 4 teachers

Item 41

February 8

Dr. Bennett visited the Center, with 3 students, 2 hours.

Item 42

January 28

Person from community, CDC (Community Service Organization) 3 hours

Item 43

April 22

One teacher from Douglas School and 30 children visit the Center, 2 hours

Item 44

April 29

Six teachers and 180 children from a noncooperating school explored the Center, used the Space Place, aNd saw a puppet show, 2 hours.

Item 45

May 13

Three teachers, 60 children saw a dance exibition by a sixth grade group, 2 hours

Item 46

May 20

Seven teachers and 210 children and 8 parents saw a ballet demonstration, 2 hours

Item 47

May 21

Title 1 Math, program again in the Space Place to see patterns and sets

One teacher and seven children, 1 hour

Item 48

May 28

Three teachers and 35 children from a non-cooperating school, 2 hours

Item 49

Twenty-eight performances by professional artists in the schools in the period March 25-May 20, each to one class, lasting 2 hours each.

Oakland Center Activities

Item 1

October 2, 1974

Formal opening, 40 guests in attendance, including school administrators, university representatives, teachers, and AEG representatives, 3 hours

Item 2

February, 1975

A four hour afternoon/evening session at the Center directed by B. Rosenblatt from CEMREL focused on program planning and package use, 14 cooperating school teachers, and center coordinators attendance.

Item 3

February, 1975

Bernie and Center Coordinator meet with Oakland school officials, two hours Also met with teachers and principals of cooperating schools, 35 persons, 2 hours

Item 4

February, 1975

Workshop at Center, 30 persons, 3 hours

Item 5

Monthly meetings for Magnet School, parents and 60 children, averaged 20 parents, average in attendance, 3 hours

Item 6

April, 1975

Rosenblatt, curriculum workshop, at AELC, 30 persons, 3 hours. In addition, Rosenblatt met with teachers and principals at cooperating schools, 35 persons, two hours each

Item 7

July, 1974

One day Viking workshop, 30 teachers in attendance from the Oakland Schools, mostly elementary teachers, 4 hours

Item 8

Alamada County workshop--one after school and evening session focusing on the use of demonstration on the use of AEP packages, 30 teachers in attendance, 4 hours

Item 9

Flow of visitors mainly from within the open system through the center component of the START building, estimate 200 per year will examine the materials, one hour per visit

Item 10

Flow of university classes (elementary education supervision, etc. through the Magnet School) estimate 100 individuals, mainly pre-service, one hour per visit

OCU Center Activities

Item 1

September 5, 1974

Grand Opening, 383 in attendance, 3 hours.

Item 2

September 6 and 7, 1974

Wordshops for Cooperating Schools and other guests, 140 participants on first day, 100 participants on second day, including 50 teachers, 12 school administrators, 40 arts specialists, and 38 pre-service teachers.

Item 3

Faculty meeting with 10 OCU staff members to explain purpose of Center and to enlist their suggestions in ways to correlate activities, 2 hours.

Item 4

September 17, 1974

Part of PTA Opening Night program devoted to display of materials, and presentation by the Coordinator to Windsor Hills patrons. 1 hour, 300 parents.

Item 5

October 17, 1974

Took play TOO MANY MONSTERS to Concho from OCU. 2 hours

Item 6

October 28, 1974

Environmental design conference at Monroe including professional decorator, schools personnel, Center Coordinator, Monroe principal and teachers, 12 participants, 2 hours.

Item 7
October 30, 1974

Session with Kathryn Bloom, and visiting panel from New York City visiting on a fact-finding mission to observe aesthetic education in Oklahoma City. 15 participants, 2 hours long.

Item 8

November 25, 1974

Concho Thanksgiving program, parents and teachers present, short presentation concerning the Aesthetic Education Program, 500 attendance, 1/2 hour long.

Item 9

November 26, 1974

Monroe Hearing Impaired Class came to Center for work with Sound and Movement package, 20 participants, 2 hours long.

Item 10

December 7, 1974

Monroe and Windsor Hills Schools participated in "Winnie the Pooh" project, Children came to OCU to see play and art exhibit which is displayed with other Cooperating Schools contributions, 75 students, 2 hours.

Item 11

February 21, 1974

25 Concho Indian students and 5 teachers visited Windsor Hills and Monroe to do Indian songs, dances, and sign language demonstrations. Each performance lasted one hour, 250 persons indluding parents attended from Monroe and 300 from Windsor Hills.

Item 12

December 7

80 Concho students participated in "Winnie the Pooh" project and viewed art exhibit, 2 hours.

Item 13

January 10, 1975

Oklahoma City Symphony performed program for Concho school, one hour.

Item 14

February 21, 1975

Session with Concho children in Center. Exploration of environment. 35 children, 5 teachers, 2 hours.

Item 15

March 11, 1975

Arts-Resource Teams (3 musicians and Coordinator) gave demonstration for PTA Meeting, 350 parents, 1 hour.

Item 16

Bi-monthly meetings with teachers and proncipal in Windsor Hills School, 2 hours per meeting.

Item 17

Monthly meetings with the Concho Principal and teachers, 2 hours per meeting.

Item 18

Bi-monthly meetings with 12 Monroe teachers and principal, 2 hours per meeting.

Item 19

Frequent meetings with Oklahoma City Public School personnel and the Monroe principal, 12 participants, 2 hours per meeting.

Item 20

Regular meeting of three OCU students assisting in Cooperating Schools, meetings total 30 hours.

Item 21

Coordinator serves on Symphony chairing committee on Indian school involvement, 4 meetings, 2 hours per meeting, 16 persons in attendance.

Item 22

Cooperation between the Center and the Oklahoma Science and Arts foundation in planning an arts center program for primary students a Zoo and summer project and a project through the Cowboy Hall of Fame, 4 persons involved in 3 meetings, 2 hours per meeting.

Item 23
April 16, 1974
Press Club session on Aesthetic Education, 1 hour 15 persons.

Item 24

April 24, 1974

Monroe School, Oklahoma City Public School Arts Consultancs, CEMREL Representative, Center Personnel involving Curriculum Conference, 12 attending, 3 hours.

Item 25

September 9, 1974

Association for Childhood Education meeting in Centers, approximately 100 area teachers involved. Exploration of Center and demonstration of materials, 1 hour.

Item 26

September 14-15, 1974

Workshop seminar with members of State Organization of the Oklahoma Speech Communication Association, annual meeting, focus two drama packages and creative writing package, 40 in attendance, 12 hours.

Item 27

September 20, 1974

Docent Workshop in Center, 100 in attendance.

Item 28

September 23, 1974

Delta Kappa Gamma Education Sorority Workshop in Center, 35 Oklahoma City area teachers.

Item 29

October, 1974

Presentation of Aesthetic Education at SWTC Teachers Conference in Albuquerque, 45 participants, 2 hours.

Item 30

November 7, 1974

Early Childhood Development Seminar, Materials and Resources in aesthetic education for young children examined, 40 participants.

Item 31

November 26, 1974

Educational Psychology Seminar, 40 students, discussion of the philosophy of aesthetic education and demonstration of materials.

Item 32

January 17, 1974

Second Docent Conference in Center, 77 attended.

Item 33

A Testing Class on part of Teacher Aesthetic Education Course, 8 - 2 hour sessions, 12 participants.

Item 34

20 school classes visited the Center by arrangement, 14 from Cooperating Schools, 1 hour 15 minutes per visit.

Item 35

Two college classes from Central State University, Edmond, Oklahoma, (25 and 28 participants respectively), 1 hour each meeting.

Item 36

50 Senior high school students from Oklahoma for Junior-Senior day at OCU, 1 hour each person.

Item 37

3 Representatives of Mental Health program from Ponca City, Oklahoma, considered use of CEMREL materials in classrooms to bolster "self-image" concepts, 2 hours.

Item 38

3 Representatives from Philbrook Museum and Tulsa Public Schools in Tulsa, Oklahoma visited the Center, 2 hours.

Item 39

6 students from Oscar Rose Junior College, Midwest City, Oklahoma, 1 hour.

Item 40

5 staff members from North Carolina University, 2 hours.

Item 41

3 teachers from Moore, Oklahoma, 1 hour.

Item 42

5 individuals from Okarche, Kingfisher, Mooreland, Clinton, Oklahoma, 1 hour.

Item 43

Workshop for Tulsa Public Schools to demonstrate materials, 6 hours, 50 teachers and specialists.

Item 44

Junius Eddy speaking on Aesthetic Education at the Mid-Year Institute of Oklahoma University, 2 sessions; 1st session, 2 hours with 150 persons in attendance, 2nd session, 1 1/2 hours, 30 persons in attendance.

Item 45

Workshop in Aesthetic Education at Emmanuel Synagogue, 20 participants, 2 hours.

PAF Center Actitivies

Item 1

October, 1974

Formal opening, 100 in attendance, including teachers, administrators, and curriculum supervisors, legislators, and PAF officials, 6 hours.

Item 2

Fall, 1974

Six week in-service workshop in the use of curriculum packages for 22 teachers from Birchwood School.

Item 3

Fall of 1974

Six-week in-service for Core teachers form East Side and Little Plains schools, 12 teachers, 12 hours.

Item 4

December 3, 1974

Workshop for 15 East Side teachers,30 minutes.

Item 5

Fall, 1974

Teacher Orientation session at the Center, 40 teachers, 2 hours.

Item 6

September, 1974

One week of "Environmental Show" featuring PAF players in Cooperating Schools, 45 minuteas each presentation to grades K-3 and 4-6.

Item 7

Artist-in-Residence at each of the Cooperating Schools, about 50 days each school through out the year, virtually all teachers and students involved.

Item 8

April, 1975

Birchwood PTA International dinner, audience participation with parents, 20 teachers, 100 children, 250 parents involved, one hour.

Item 9

May,

Artist-in-Residence in Birchwood School, all school poetry festival, all grade levels involved, 50 minutes for each of 2 assemblies, plus planning time.

Item 10

April, 1975

Italian Night at Little Plains School for PTA.

Each grade had an Italian theme and related AEP packages to the theme--program also included Italian dinner, 8 teachers involved in planning or implementation, 5 hours, 60 children, 200 parents involved for three hours.

Item 11

May, 1975

Rosenblatt meetings, 5 hours each cooperating school, 3 hour curriculum workshop for 20 CORE teachers, 3 principals.

Item 12

October, 1974

1/2 day workshop at Center for 16 school administrators, 4 hours.

Item 13

Fall, Spring, Summer

Creative Classroom I, 15 hours for one credit. 12 teachers per session.

Item 14

Creative Classroom II, using teacher package number one and a more advanced version of Creative Classroom I. Class offered in the Summer, Spring, Fall, 15 hours each session, 6 teachers attending each session.

Item 15

Wantagh District, 3 workshops, 11 teachers and supervisors, 2 hours each workshop.

Item 16

PAF artists in area schools during the year, used AEP packages as part of their program, one class per week, approximately 36 classrooms visited over the entire period.

PDE Center Activities

Item 1

September 18, 1974

Planning meeting, one hour.

Item 2

September 22, 1974

Mifflin County Organizational Meeting, one hour.

Item 3

September 24, 1974

Harrisburg Organizational Meeting, one hour.

Item 4

October 11, 1974

Half day workshop as part of the Aesthetic Education Regional Tour, Cumberland Valley, 14 teachers in attendance, 3 hours.

Item 5

October 30, 1974

One hour workshop, and teacher orientation, 15 teachers from Mifflin County. One hour.

Item 6

November 13, 1974

Hamilton, workshop, 10 teachers, one hour.

Item 7

November 15, 1974

Workshop for Mifflin County for teachers and administrators, 11 in attendance, 4 hours.

Item 8

November 18, 1974

Introduction of CEMREL materials, Harrisburg, 12 teachers, 1 hour.

Item 9

November 22, 1974

WAMP Planning Meeting, 3 staff, 2 hours.

Item 10

November 25-26, 1974

Hamilton school, Creative Drama Program, 12 teachers, 400 children over two days, 12 hours.

Item 11

December 2, 1974

CEMREL Package Introduction, Hamilton Elementary School, 10 CORE teachers, 1 hour.

Item 12

December 5, 1974

Hamilton School, package introduction workshop, 10 teachers, one hour.

Item 13

December 11, 1974

First meeting in AELC of Aesthetic Education Committees, Cooperative Group Schools, focus on Music, 16 participants, 4 hours.

Item 14

December 13, 1974

Mifflin County Staff, 15 teachers, 4 hours

Item 15

January 3, 1975

JDR III visit to Center with Building tour, 1 hour.

Item 16

January 16-17, 1975

Mifflin County, Creative Drama Workshop, 10 teachers, 160 children, 4 hours after shcool.

Item 17

January 23, 1975

Hamilton School at the Center, 4 teachers, 60 children 1 1/2 hours.

Item 18

January 27-29, 1975

Bernard Rosenblatt's visit

2 hour visit to each Cooperating School to meet with Core teachers, 33 teachers and 3 principals.

Item 19

2 hour meeting at Center for introduction to Teacher Education #1, 2 hours, 16 persons attended including 14 Cooperating School tachers and 2 State Department persons.

Item 20

January 30, 1975

Hamilton School at the Center, 4 teachers, 60 children 1 1/2 hour.

Item 21

February 4, 1975

Hamilton School Workshop, 5 teachers, 60 children, 1 1/2 hours.

Item 22

February 11, 1975

Hamilton School at the Center, 3 teachers, 60 children, 1 1/2 hours

Item 23

February 18, 1975

Hamilton School at the Center, 2 teachers, 60 children, 1 1/2 hours

Item 24

February 25, 1975

Hamilton School Workshop, 4 teachers, 60 children 1 1/2 hours.

Item 25

March 4, 11, 18 and April 1, 1975

Hamilton School workshop, 8 teachers, 15 children,

Item 26

April 8, 1975

Hamilton and Comberland Valley workshop, 6 teachers, 1 hour, 90 children, 30 minutes

Item 27

April 14, 1975

Grand Opening of the Center, 85 children and other guests, 5 hours.

Item 28
April 15, 1975
Cumberland Valley workshop, 5 teachers, 150 children, 5 hours

Item 29

April 22, 1975

Hamilton School workshop, 12 teachers, 15 children, 1 hour

Item 30

April 22, 1975

Hamilton School workshop, 2 teachers, 60 children, 1 hour.

Item 31

June, 1975

Aesthetic Education Review and Planning Workshops, Harrisburg, 9 teachers, 2 administrators, 1 government educational agency person, 2 - 2 hour sessions.

Item 32

October 28, 1975

Full day Workshop, Cumberland Valley, 35 person attended in the morning, 40 in the afternoon, 2 1/2 hours each session, 10 Coordinating teachers in attendance, focus on Creative Drama.

Item 33

July, 1974

Workshops by Center Coordinator, 120 teachers in attendance. 15 hours for sessions workshops for 3 days

Item 34

December 6, 1974

Association of Elementary Principals meeting at Center, 50 principals, 1 hour.

Item 35

December 9, 1974

Ways and Meaning Place, AELC Overview and Movement Experience, Arts and Humanities Division of Pennsylvania Department of Education, 30 from Bureau of Curriculum Services attending.

Item 36

December 1, 1974

Presentation by Coordinator and State Department person in Philadelphia to group of 25 elementary principals from Elementary Principal Association, one hour.

Item 37

October 21, 1974

Regional Tour began in Hamilton School, 40 teachers and 60 children participated, 2 workshops; morning workshop was 2 hours long, afternoon workshop was 3 hours long.

Item 38

June, 1975

Puppet workshop in 4 locations, 15 hours each, 140 teachers involved

APPENDIX D

CATEGORIES OF IMPLEMENTATION*

Categories	Aesthetic Education Learning Center (AELC)	Cooperating School (C.S.)	CEMREL
Space	Designate and provide a suitable space as the Aesthetic Education Learning Center. Assist the Laboratory in installing the Center.	Publicize special aesthetic education spaces to teachers, if special rooms or other space is available.	Design and install a model learning environment and resource center for aesthetic education.
Staffing	Designate a local person to coordinate the Center and to serve as a liaison with CEMREL.	Designate a local person to coordinate the C.S. and to serve as a liaison with CEMREL and the AELC.	Designate staff members to serve as liaison with the AELC and C.S. in implementing and maintaining the Center an the C.S.
Instructional Resources	Make available to Center users aesthetic education materials (in addition to CEMREL materials).	Make available to teachers and administrators instructional materials in aesthetic education (in addition to CEMREL materials).	Provide, for the Center, learning packages developed by the Aesthetic Education Program and other relevant materials. Loan the C.S., for a period c two years, learning packages developed by the Aesthetic Education Program. Upon satisfactory completion of th project, the packages will become the property of the C.

*Check off those items you have completed.

Categories	Aesthetic Education Learning Center	Cooperating School	CEMREL
Staff Training	Participate in periodic orientation sessions, workshops, and conferences as mutually agreed upon.	Participate in periodic orientation sessions, and conferences as mutually agreed upon.	Provide the training for the Center coordinator, C.S. coordinator and related personnel.
		Exchange classroom observation among C.S. teachers (core teachers and non-core teachers).	Conduct periodic conferences at which various C.S. and Centers could share ideas and discuss mutual concerns in the area of aesthetic education.
			Conduct periodic conferences at which various cooperating Centers could share ideas and discuss mutual concerns in the area of aesthetic education for teacher education.
	Participate in CEMREL orientation workshop.	Participate in CEMREL orientation workshop.	Conduct orientation workshop with AELC and C.S. personnel
	Participate in CEMREL goals clarification workshop. (Jan./Feb., 1975)	Participate in CEMREL goals clarification workshop. (Jan./Feb. 1975)	Conduct goals clarification workshop (Jan./Feb. 1975) with AELC and C.S. personnel to: 1. clarify goals and objectives 2. further familiarize and train a core of teachers in the use of a.e. instructional resources 3. identify the teacher core in each C.S.
	Participate in CEMREL Curriculum Workshop: Part I (Spring, 1975)	Participate in CEMREL Curriculum Workshop: Part I (Spring, 1975)	Conduct Curriculum Workshop: Part I (Spring, 1975) with AELC and C.S. personnel to: 1. assist them in the preparation of a year's program in aesthetic education 2. Review of Handbooks

Categories	Aesthetic Education Learning Center	Cooperating School	CEMREL
Staff Training	Participate in CEMREL Curriculum Workshop: Part II (Fall, 1975)	Participate in CEMREL Curriculum Workshop: Part II (Fall, 1975)	Conduct Curriculum Workshop: Part II (Fall, 1975) with AELC and C.S. personnel to: 1. review implementation progress 2. assist in problem solving Development of workshops manual which will aid Center staff and core teachers in their conduct of workshops. Provide consultant services.
	Conduct at least monthly or bi-monthly training meetings with the a.e. core teachers in the C.S. Possible subjects include: a. Classroom teaching problems as they relate to aesthetic education b. Familiarization with AEP student packages (new as well as current titles) or other aesthetic education resource materials c. CEMREL AEP Teacher Education packages	Aesthetic Education core teachers participate regularly in agreed-on training sessions conducted by the AELC (at least monthly or bimonthly sessions).	Provide instructional resources information, and program suppor materials as they become available.
	In cooperation with C.S. conduct at least one yearly seminar for as many of the personnel from the C.S. as possible. a. This seminar should be conducted jointly by a.e. teacher core and AELC personnel. b. The purpose is to familiarize the entire school faculty with the nature and activities of the a.e. teacher core	Aesthetic Education core teachers in cooperation with the AELC conduct at least one yearly seminar for as many of the personnel from the C.S. as possible.	Whenever applicable CEMREL, in cooperation with institutions of higher learning in the AELC region, will aid in arrangemen for the provision of college credit or certificates of attendance for teachers partici pating in AELC courses or workshops.

Categories	Aesthetic Education Learning Center	Cooperating Schools	CEMREL
Staff Training			As each Center's program will vary in structure and direction, CEMREL AEP will assist in solving special training problems and structuring special programs as needed.
Curriculum	Use the learning packages developed by CEMREL's Aesthetic Education Program as part of its educational program. Have teacher candidates use the CEMREL packages during their student teaching assignments. Continue to develop a teacher education program in aesthetic education.	Use the learning package developed by CEMREL's Aesthetic Education Program as part of its educational program.	
	Planning of teacher education curriculum program and means to implement it. (Spring, 1975)	Planning of elementary curriculum program and means to implement it. (Spring, 1975)	Develop Handbooks for the implementation of aesthetic education at the elementary and teacher education levels. (Fall, 1975) (Draft-Feb., 1975)
	Initial implementation of the curriculum program. (Fall, 1975)	Initial implementation of the curriculum program. (Fall, 1975)	Identify and document mutually agreed upon curricula/ programs for aesthetic education. (Spring/Fall, 1975)
	Assist the Laboratory in identifying and documenting alternative curricula/programs in teacher education for aesthetic education. (Spring/Fall, 1975)	Assist the Laboratory in identifying and documenting alternative curricula/ programs in aesthetic education. (Spring/Fall, 1975)	Identify and document alternative curricula/programs in teacher education for aesthetic education (Spring/Fall, 1975)

Categories	Aesthetic Education Learning Center	Cooperating School	CEMREL
Community Involvement and Dissemination	Inform local and regional persons, institutions, and agencies about the Center. This includes arts organizations, arts supervisors, etc.	Allow authorized observation of the teaching of Aesthetic Education Program materials.	Publish a newsletter and circulate among all Centers and the general public.
	Attempt to identify agencies, school systems and individual schools in their region which are interested in implementing aesthetic education programs.	Attempt to identify schools within their system which are interested in implementing aesthetic education programs.	Make presentations and conduct workshops at selected meetings of professional associations.
	Publish articles in appropriate magazines and journals.	Publish articles in appropriate magazines and journals.	Publish articles in appropri magazines and journals.
	Allow authorized observation of the activities of the Center.	Provide follow up, with the assistance of the AELC as necessary, to specified institutions who visit the C.S. and want to establish their own programs in aesthetic education.	Conduct regional and nationa training seminars which would be available on a cost sharing basis to all institu tions seeking further training in a.e. curriculum development, etc.
	Implement a program of individual workshops utilizing the Center and provide staffing.		Provide the C.S. recognition and publicity as a CEMREL Aesthetic Education C.S.
	Assist the Laboratory in conducting Laboratory workshops.		Provide the AELC recognition and publicity as a CEMREL Aesthetic Education Learning Center.

Categories	Aesthetic Education Learning Center	Cooperating School	CEMREL
Testing/ Documentation	Participate in the testing of learning packages developed by CEMREL for teacher education in aesthetic education. Collect and forward to CEMREL data needed to evaluate CEMREL Teacher Education materials in the form of teacher opinionnaires, student attitude surveys, demographic information, and other data mutually agreed upon by the parties. If other data is found necessary, it would be mutually agreed upon. Assist CEMREL in the documentation of the implementation of a.e.	Participate in research studies conducted by CEMREL Assist CEMREL in documenting the implementation of a.e.	Develop and test learning resources for teacher education in aesthetic education. Document, in the form of case studies, the implementation of a.e. at each site.

1/3/75 - jb

APPENDIX E

1. What grade(s) do you teach?
   - ☐ kindergarten
   - ☐ first grade
   - ☐ second grade
   - ☐ third grade
   - ☐ fourth grade
   - ☐ fifth grade
   - ☐ sixth grade
   - ☐ other (specify) ______________________________

2. How would you characterize your particular arrangement? (check one)
   - ☐ Self-contained classroom
   - ☐ team teaching
   - ☐ other (explain) ______________________________

3. Which of the following items best describe your initial reasons for using CEMREL's Aesthetic Education materials in your classroom this year? (check all that apply)
   - ☐ I'm interested in innovative materials.
   - ☐ I'm interested in aesthetic education.
   - ☐ The materials looked interesting.
   - ☐ I was required to use the materials
   - ☐ Other (explain) ______________________________

     ____

4. For each of the following sets of materials, check (✓) the box that would best characterize its usage in your classroom for 1974-75. Also place a checkmark in the last column if you plan to use the package next year.

	Did not use	Used only part of the package	Used the package as an incidental learning activity	Used the entire package as part of a larger program in Aesthetic Education	Used the package in connection with a subject such as language arts (abbreviate the subject in the blank)	Package was taught to my children by an arts specialist	Check this column if you plan to use the package next year
Creating Word Pictures							
Constructing Dramatic Plot							
Creating Characterization							
Meter (Rhythm/Meter)							
Relating Sound and Movement							
Shape Relationships							
Shapes and Patterns							
Shapes							
Examining Point of View							
Tone Color							

5. Through what kinds of scheduling have you used the sets of materials this year? (Check as many as appropriate.)

☐ in a separate period set aside for aesthetic education

☐ as a part of a related arts discipline (music, art, etc.)

☐ as part of a related area which is considered a core or core-related subject (language arts, social studies, communication, mathematics or science)

☐ in lieu of free time

☐ other (specify)______________________________

6. Indicate by checking which, if any, of the following supplementary activities have been undertaken in conjunction with the use of the program in your classroom? (Check all that apply)

☐ integration with regular subject matter from arts-related courses.

☐ integration with regular subject matter from other academic areas

☐ integration with other special commerical programs (e.g., Man: A Course of Study) Specify which program, if appropriate.

☐ use of community resources (performing groups, speakers, etc.)

☐ extension by additional activities designed by the teacher

7. When you use more than one set of materials do you attempt to establish connecting links between them?

☐ Frequently

☐ Sometimes

☐ Rarely; packages are treated as distinct units and connections are rarely attempted.

8. In general, which of the following statements would best characterize your feelings about the use of Aesthetic Education materials? (Check one)

☐ Aesthetic education materials are to be used as supplements to courses of study that are predominantly aesthetic in nature (art, music, etc.).

☐ Aesthetic education materials are to be used as supplements to any course of study where appropriate links can be made.

☐ Aesthetic education materials are to be used as a supplement to the language arts program

☐ Aesthetic education is a course of study in itself.

9. For each of the following groups of people, check the box which best describes their attitude towards the aesthetic education program in your school.

	Very Positive	Positive	Indifferent	Negative	Very Negative
parents	☐	☐	☐	☐	☐
teachers within the program	☐	☐	☐	☐	☐
other classroom teachers	☐	☐	☐	☐	☐
school building administration	☐	☐	☐	☐	☐
district level administration	☐	☐	☐	☐	☐
arts-related specialist teachers (e.g., music teachers, art teachers)	☐	☐	☐	☐	☐
students	☐	☐	☐	☐	☐

10. What general effect has your experience with the specific materials of the Aesthetic Education Program had on your belief in the concept of the arts as part of the education of each child?

☐ My enthusiasm has always been high and remains so.

☐ My experience with the materials has increased my enthusiasm.

☐ My enthusiasm has decreased to some degree.

11. What forms of in-service learning have been most important to you in developing your ability to successfully implement the materials. (Check those most important)

☐ Study of the teacher's guide and experience

☐ Workshops taught by a person within the school system.

☐ Informal contact with other teachers.

☐ Workshops taught by a person affiliated with CEMREL.

☐ Other contact with district level personnel.

☐ Inservice activities provided by the Aesthetic Education Learning Center.

☐ Other (specify)______________________________________

12. What forms of support would be most appropriate to help you in strengthening your program in aesthetic education? (Check those most important)

☐ A handbook for curriculum development in aesthetic education.

☐ The offering of aesthetic education courses at a local university.

☐ Additional in-service training programs for teachers.

☐ Other (specify)____

Thank you for your cooperation. Please mail the completed questionnaire in the return envelope provided.

C. Publication of Materials

TOTAL PURCHASE COST AND PER-STUDENT COST OF 12 UNITS IN THE FIVE SENSE STORE: THE AESTHETIC EDUCATION PROGRAM PUBLISHED BY THE VIKING PRESS/LINCOLN CENTER FOR THE PERFORMING ARTS

The following four tables will help a prospective purchaser of the Five Sense Store: The Aesthetic Education Program materials determine the total initial costs for any combination of units, and the cost per student for both 1 year of classroom use and 5 years.

The first table shows the per-student and total cost for 6, 9, and 12 classroom uses in 1 year with classes of 24 students each. The second table uses the same number of classroom uses and 24 students, but extends the time to 5 years. The third and fourth tables also show 6, 9, and 12 classroom uses, over both 1 year and 5 years, but with classes of 30 students each.

Consumables for each package are used up at varying rates, and the "Consumables" column on all charts represents an estimate of consumable purchase timing by the school.

Briefly, the tables are set up as follows:

Column 1 lists the units by title.

Column 2 gives the price of a single student set, which contains enough material for 6 students.

Column 3, in Tables I and II, shows the price of 4 student sets (Column 2 x 4), which is enough material for 24 students; and, in Tables III and IV, the price of 5 student sets (Column 2 x 5), which is enough material for 30 students.

Column 4 gives the price of a single teacher set.

Column 5, "Consumables," shows first the cost of additional consumables for each unit (usually enough for an additional 30 students); and then the cost of consumables in quantities sufficient for 6, 9, and 12 classroom uses.

Column 6, "Total Cost," is also divided into 6, 9, and 12 classroom uses, and the figures represent the total investment in any or all units (Column 3 + Column 4 + either 6, 9, or 12 classroom uses from Column 5).

Column 7, "Per Student Cost Per Unit," shows just that--for the total Five Sense Store program, and for each unit--used either 6, 9, or 12 times over 1 year (Column 6 ÷ by either 144 students, 216 students, or 288 students).

Column 8, which appears only on Tables II and IV, gives the per-student cost of each unit for each year if the materials are used over a 5 year period.

Tables Prepared October 1975

TABLE I

Unit Title	Price of 1 6-student set	4 sets (for 24 students)	Price of 1 Teacher Set	Consumables				Total Cost			Per Student Cost Per Unit for: 144 s.	216 s.	288 s.
				1 use	6 uses	9 uses	12 uses	6 uses	9 uses	12 uses	6 uses	9 uses	12 uses
Texture	67.50	270.00	37.50	none	none	none	none	307.50	307.50	307.50	2.13	1.42	1.07
Arranging Sounds w/ Magnetic Tapes	92.50	370.00	130.00	124.15	467.16	748.44	1078.20	967.16	1248.44	1578.20	6.72	5.76	5.48
Shape	27.50	110.00	4.95	6.35	6.35	20.16	35.28	121.30	135.11	150.23	.84	.62	.52
Shape Relationships	33.95	135.80	4.95	8.20	8.20	25.92	45.36	148.95	166.67	186.11	1.03	.77	.65
Shapes & Patterns	36.00	144.00	4.95	9.50	9.50	29.76	52.08	158.45	178.71	201.03	1.10	.83	.70
Point of View	27.50	110.00	4.95	6.35	6.35	20.16	35.28	121.30	135.11	150.23	.84	.62	.52
Creating Characterization	52.50	210.00	32.50	6.60	6.60	21.12	36.96	249.10	263.62	279.46	1.73	1.22	.97
Creating Word Pictures	72.00	288.00	4.95	10.45	10.45	32.64	57.12	303.40	325.59	350.07	2.11	1.51	1.21
Constructing Dramatic Plot	56.50	226.00	15.00	5.50	5.50	17.28	30.24	246.50	258.28	271.24	1.71	1.19	.94
Tone Color	42.50	170.00	85.00	1.45	1.45	3.84	6.72	256.45	258.84	261.72	1.78	1.20	.91
Rhythm/Meter	15.00	60.00	60.00	12.55	12.55	39.36	68.88	132.55	159.36	188.88	.92	.74	.66
Relating Sound & Movement	29.00	116.00	116.00	3.40	3.40	10.56	18.48	235.40	242.56	250.48	1.63	1.12	.87
TOTAL	552.45	2209.80	500.75	194.50	537.51	969.24	1464.60	3248.06	3679.79	4175.15	22.54	17.00	14.50

Prepared 10/75

TABLE II

Unit Title	Price of 1 6-student set	4 sets (for 24 students)	Price of 1 Teacher Set	Consumables				Total Cost			Per Student Cost Per Unit			Per Student Cost Per Package for 1 Year		
														720 s.	1080 s.	1440 s
				1 use	6 uses	9 uses	12 uses	6 uses	9 uses	12 uses	6 uses	9 uses	12 uses	6 uses	9 uses	12 uses
Texture	67.50	270.00	37.50	none	none	none	none	307.50	307.50	307.50	.43	.28	.21	.09	.06	.04
Arranging Sounds w/ Magnetic Tapes	92.50	370.00	130.00	124.15	3056.76	4705.56	6354.36	3556.76	5205.56	6854.36	4.94	4.82	4.76	.99	.96	.95
Shape	27.50	110.00	4.95	6.35	126.00	201.60	277.20	240.95	316.55	392.15	.33	.29	.27	.07	.06	.05
Shape Relationships	33.95	135.80	4.95	8.20	162.00	259.20	356.40	302.75	399.95	497.15	.42	.37	.34	.08	.07	.07
Shapes & Patterns	36.00	144.00	4.95	9.50	186.00	297.60	409.20	334.95	446.55	558.15	.46	.41	.38	.09	.08	.08
Point of View	27.50	110.00	4.95	6.35	126.00	201.60	277.20	240.95	316.55	392.15	.33	.29	.27	.07	.06	.05
Creating Characterization	52.50	210.00	32.50	6.60	132.00	211.20	290.40	374.50	453.70	532.90	.52	.42	.37	.10	.08	.07
Creating Word Pictures	72.00	288.00	4.95	10.45	204.00	326.40	448.80	496.95	619.35	741.75	.69	.57	.51	.14	.11	.10
Constructing Dramatic Plot	56.50	226.00	15.00	5.50	108.00	172.80	237.60	349.00	413.80	478.60	.48	.38	.33	.10	.08	.07
Tone Color	42.50	170.00	85.00	1.45	24.00	38.40	52.80	279.00	293.40	307.80	.38	.27	.21	.08	.05	.04
Rhythm/Meter	15.00	60.00	60.00	12.55	246.00	393.60	541.20	366.00	513.60	661.20	.50	.47	.45	.10	.09	.08
Relating Sound & Movement	29.00	116.00	116.00	3.40	66.00	105.60	145.20	298.00	337.60	377.20	.41	.31	.26	.08	.06	.05
TOTAL	552.45	2209.80	500.75	194.50	4436.76	6913.56	9390.36	7147.31	9624.11	12100.91	9.89	8.88	8.36	1.99	1.76	1.65

Prepared 10/75

TABLE III

Unit Title	Price of 1 6-student set	5 sets (for 30 students)	Price of 1 Teacher Set	Consumables				Total Cost			Per Student Cost Per Unit for: 180 s.	270 s.	360 s.
				1 use	6 uses	9 uses	12 uses	6 uses	9 uses	12 uses	6 uses	9 uses	12 uses
Texture	67.50	337.50	37.50	none	none	none	none	375.00	375.00	375.00	2.08	1.39	1.04
Arranging Sounds w/ Magnetic Tapes	92.50	462.50	130.00	124.15	544.56	956.76	1368.96	1137.06	1549.26	1961.46	6.32	5.74	5.45
Shape	27.50	137.50	4.95	6.35	6.35	25.20	44.10	148.80	167.65	186.55	.83	.62	.52
Shape Relationships	33.95	169.75	4.95	8.20	8.20	32.40	56.70	182.90	207.10	231.40	1.02	.77	.64
Shapes & Patterns	36.00	180.00	4.95	9.50	9.50	37.20	65.10	194.45	222.15	250.05	1.08	.82	.69
Point of View	27.50	137.50	4.95	6.35	6.35	25.20	44.10	148.80	167.65	186.55	.83	.62	.52
Creating Characterization	52.50	262.50	32.50	6.60	6.60	26.40	46.20	301.60	321.40	341.20	1.67	1.19	.95
Creating Word Pictures	72.00	360.00	4.95	10.45	10.45	40.80	71.40	375.40	405.75	436.35	2.08	1.50	1.21
Constructing Dramatic Plot	56.50	282.50	15.00	5.50	5.50	21.60	37.80	303.00	319.10	335.30	1.68	1.18	.93
Tone Color	42.50	212.50	85.00	1.45	1.45	4.80	8.40	298.95	302.30	305.90	1.66	1.12	.85
Rhythm/Meter	15.00	75.00	60.00	12.55	12.55	49.20	86.10	147.55	184.20	221.10	.82	.68	.61
Relating Sound & Movement	29.00	145.00	116.00	3.40	3.40	13.20	23.10	264.40	274.20	284.10	1.47	1.02	.79
TOTAL	552.45	2762.25	500.75	194.50	614.91	1232.76	1851.96	3877.91	4495.76	5114.96	21.54	16.65	14.20

Prepared 10/75

TABLE IV

	Price of 1 6-student set	5 sets (for 30 students)	Price of 1 Teacher Set	Consumables				Total Cost			Per Student Cost Per Unit			Per Student Cost Per Package for 1 Year		
														900 s.	1350 s.	1800 s.
				1 use	6 uses	9 uses	12 uses	6 uses	9 uses	12 uses	6 uses	9 uses	12 uses	6 uses	9 uses	12 uses
Texture	67.50	337.50	37.50	none	none	none	none	375.00	375.00	375.00	.42	.28	.21	.08	.06	.04
Arranging Sounds w/ Magnetic Tapes	92.50	462.50	130.00	124.15	3842.16	5903.16	7964.16	4434.66	6495.66	8556.66	4.93	4.81	4.75	.98	.96	.95
Shape	27.50	137.50	4.95	6.35	157.50	252.00	346.50	299.95	394.45	488.95	.33	.29	.29	.07	.06	.06
Shape Relationships	33.95	169.75	4.95	8.20	202.50	324.00	445.50	377.20	498.70	620.20	.41	.36	.34	.08	.07	.07
Shapes & Patterns	36.00	180.00	4.95	9.50	232.50	372.00	511.50	417.45	556.95	696.45	.46	.41	.38	.09	.08	.08
Point of View	27.50	137.50	4.95	6.35	157.50	252.00	346.50	299.95	394.45	486.95	.33	.29	.27	.06	.06	.05
Creating Characterization	52.50	262.50	32.50	6.60	165.00	264.00	363.00	460.00	559.00	658.00	.51	.41	.36	.10	.08	.07
Creating Word Pictures	72.00	360.00	4.95	10.45	255.00	408.00	561.00	619.95	772.95	925.95	.68	.57	.51	.14	.11	.10
Constructing Dramatic Plot	56.50	282.50	15.00	5.50	135.00	216.00	297.00	432.50	513.50	594.50	.48	.38	.33	.10	.08	.06
Tone Color	42.50	212.50	85.00	1.45	30.00	48.00	66.00	327.50	345.50	363.50	.36	.25	.20	.07	.05	.04
Rhythm/Meter	15.00	75.00	60.00	12.55	307.50	492.00	676.50	442.50	627.00	811.50	.49	.46	.45	.10	.09	.09
Relating Sound & Movement	29.00	145.00	116.00	3.40	82.50	132.00	181.50	343.50	393.00	442.50	.38	.29	.24	.08	.06	.05
TOTAL	552.45	2762.25	500.75	194.50	5567.16	8663.16	11759.16	8830.16	11926.16	15022.16	9.78	8.80	8.33	1.95	1.76	1.66

Prepared 10/75

IV. Bibliography

This bibliography represents published materials that have been generated by the Aesthetic Education Program. The materials have been divided into three categories:

> Books, reports and scholarly articles which for the most part have been written by staff members and Program associates;
>
> Newspaper and magazine articles which have provided a wide-range exposure of the Program to interested lay persons and educators;
>
> Films and television shows produced in relationship to the Program.

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